



Cape May County Transportation Study

Prepared by:
Cape May County Planning Department
4 Moore Road
Cape may Court House, New Jersey 08210
www.capemaycountygov.net

2006

Cover: Rendering of Proposed Middle Thorofare Bridge Replacement, Ocean Drive (Co. Rd. 621) Lower Township.

CAPE MAY COUNTY PLANNING BOARD

Resolution Number 03-06

ADOPTING THE CAPE MAY COUNTY TRANSPORTATION PLAN

Whereas, the County of Cape May seeks to provide state-of-the-art transportation facilities for the convenience and safety of its residents and visitors; and

Whereas, it is necessary to provide a Transportation Plan to meet the current and future transportation needs of the County and to satisfy Federal and State planning requirements; and

Whereas, Cape May County has prepared said plan addressing these issues and wishes to adopt this plan as the Transportation Element of the Cape May County Comprehensive Plan; and

Whereas, prior to the adoption of any component or amendment of a County Comprehensive Plan a public hearing must be held in accordance with NJSA 40:27-4; and

Whereas, on September 19, 2006 the Cape May County Planning Board held such a public hearing and listened to and addressed the concerns of the public regarding the plan.

Now Therefore Be It Resolved by the Cape May County Planning Board that the Cape May County Transportation Plan is hereby adopted as the Transportation Element of the Cape May County Comprehensive Plan; and

Now Therefore Be It Further Resolved, that in accordance with the provisions of NJSA 40:27-4, attested copies of this plan shall be certified to the Cape May County Board of Chosen Freeholders, the Cape May County Park Commission, and the Municipal Clerks of all municipalities in the County.

Barbara Boeshe, Chairperson

Dale Foster, Secretary

Date: September 19, 2006

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Prepared by:

Cape May County Planning Department

James J. Smith, AICP, PP# 3976
Planning Director

FREEHOLDERS

Daniel Beyel, Director
Ralph E. Sheets, Jr., Vice-Director
Gerald M. Thorton
Leonard C. Desiderio
Ralph E. Bakley, Sr.

PLANNING BOARD

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Paul Glynn
Jean Davis, Alternate

PLANNING STAFF

James J. Smith, AICP, PP, Planning Director
Martin P. Teller, Jr., Principal Planner
Brigitte Sherman, Principal Planning Aide
Brian O'Connor, Principal Planning Aide (GIS)
John Vona, Senior Planning Aide
Lucille De Simone, Administrative Secretary

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Cape May County Transportation Plan

Preface

The first Transportation Plan created by the Cape May County Planning Board was completed in 1959 and included as part of the 1963 County Comprehensive plan. Since that time, there have been several County transportation studies (see Appendix 1, Bibliography). The 1994 Transportation Study by The Cape May County Planning Department represented the first significant update of the County Transportation Plan since 1959. The Plan included elements on geography, population, land development, transportation systems, planning issues and recommendations for future transportation projects. The 2000 Transportation Plan updated similar activities.

This 2006 Transportation Plan update includes data analysis and recommendations that are a collective work of the Cape May County Planning and Engineering Departments as well as the New Jersey Department of Transportation, the New Jersey Turnpike Authority, the Cape May County Bridge Commission, and the municipalities of Cape May County.

This plan is divided into three sections. The first section provides an overview of the County's geographic location, physical features, and transportation history. The second section provides an overview of the County's existing transportation system, including rail, air, and other transport. The third and final section discusses planning issues and areas of specific concern for transportation and includes a list of specific objectives and recommendations for the future of transportation in Cape May County.

Purpose and Objectives

This Transportation Plan is designed to provide direction and guidance to public and private sector officials in the formulation, design, and construction of transportation improvement programs that deal realistically with present and future transportation issues affecting Cape May County.

Transportation planning is rapidly becoming more complex as it must consider factors such as environmental constraints, regional economic impact, land use, and current and future policies and programs of federal, state, and local governments. These issues, compounded by the influence of ever-increasing traffic volumes, place significant demand on transportation planners. In order to provide a safer and more efficient transportation network, this document is an attempt to plan necessary improvements and additions to existing transportation facilities that are timely and consistent with standard engineering practices and designs.

A major goal of this Plan is to integrate land use and transportation planning among all levels of government and the private sector to enhance the lives and activities of the citizens and visitors of Cape May County. Through effective resource allocation, proper maintenance, and the use of environmentally sensitive designs and programs, the goals and objectives of promoting safe mobility can be properly achieved.

Another objective of this plan is to integrate the goals of the most recent Federal Highway Authorization Act and the Clean Air Act Amendments of 1990. Congress has provided flexible funding alternatives and more stringent transportation requirements that tie air quality initiatives to the transportation planning process. The complexities of this union have resulted in the de-emphasis of new road construction and emphasis on the maintenance and upkeep of our existing highway system. This strategy can best be seen in the Transportation Improvement Program 2006-2008 (as shown in Appendix 2). Although this plan proposes over 61 million dollars of transportation activities in the three year period, new roads are only a small portion of the total mileage involved.

Section One

INTRODUCTION

LOCATION AND GEOGRAPHY

Cape May County is located on the southernmost point of New Jersey between the Atlantic Ocean and the Delaware Bay. Lying along a northeast to southwest axis formed by U.S. Route Nine and the Garden State Parkway, the County is a peninsula approximately 32 miles long and 10 to 15 miles wide containing approximately 263 square miles. As a point of reference, Cape May City at the southern most end of the County is approximately the same latitude as Washington, D.C. (See Figure 1, Cape May County Location Map).

Geographically, Cape May County is located 150 miles southwest of New York City, 80 miles southeast of Philadelphia, and 130 miles east of Washington D.C. This centralized location, within a few hours travel from a variety of densely populated major metropolitan areas, together with the coastal geography, has played a prominent role in the development of Cape May County's resort-oriented economy. It is this situation which is the prime cause of the County's significant seasonal increase in population and, correspondingly, traffic volume.

The County's soils generally are sandy and the topography consists of flat rolling terrain with little elevation. The numerous rivers and creeks tend to be short, but comparatively wide, and are usually adjacent to large swamp or tidal marsh areas. It is these tidal wetland areas that divide and distinguish the two main types of communities in Cape May County: barrier islands and mainland .

Of the sixteen municipalities in the County, eight (Ocean City, Sea Isle City, Avalon, Stone Harbor, and the four Wildwood municipalities) are considered "barrier island" communities. (See Figure 2, Cape May County Map) Isolated from the mainland by large areas of tidal wetlands, these towns are typically long, narrow, and intensely developed. They are accessible only by means of long causeways which sometimes require a series of bridges. If Cape May City, Cape May Point and West Cape May were categorized in the barrier island group because of their resort character, the remaining five communities (Upper Township, Woodbine Borough, Dennis Township, Middle Township, and Lower Township) can loosely be considered "mainland", though all (except Woodbine) have some portion of their border on ocean or bay tidal waters.

The majority of upland in the County is located in the mainland communities. Collectively, these five mainland communities make up approximately 90 percent of Cape May County's total land area. These large municipalities are also where most new development is currently taking place.

HISTORY OF TRANSPORTATION IN CAPE MAY COUNTY

Over the years, the development of transportation in Cape May County has mainly followed the national pattern of technological advance.

In the year 1698, the first County road was authorized to enable the few residents of Cape May to travel to court at Burlington. At the time, the construction of this road was unusual because most County residents lived in whaling villages along coastal areas and relied on the boat as their primary means of long-distance transportation. This general relationship of a reliance on water transport and the slow expansion of land transportation routes continued through the eighteenth century. In the early half of the nineteenth century the steamboat strengthened the trend of reliance on water transport and contributed greatly to the growth of Cape May City as a flourishing resort center. Surface transportation and roadways were still secondary in importance.

It was not until the latter half of the nineteenth century that Cape May County's transportation pattern changed significantly. Around that time, the two small stagecoach lines providing land service to Cape May County and its resorts were replaced by a number of railroads and rail lines created throughout the County as a result of the growing seasonal tourism industry. This was the beginning of Cape May County's railroad era. Reports from the era tell of keen competition between rival rail providers so intense that skirmishes, fistfights, and lengthy legal battles resulted.

Around the beginning of this era (circa 1856), agriculture was the predominant land use, resulting in a dense network of basic farm and woods roads that covered the mainland of the county. Maps from the period show a road network much larger and more intricate than today's. Though the quality of these roads was very poor, the cumulative mileage of these roads far exceeded today's total. The decrease in total road mileage that occurred over the next century can be attributed to the decline in the County's agricultural industry and the growing need for more sophisticated roadways to satisfy the increasing numbers of "horseless carriages" which became the leading means of transportation in the early part of the twentieth century.

One of the events, which "paved the way" for the roads required by the modern automobile, was the brief era of the bicycle. The bicycle craze swept the nation during the latter part of the nineteenth century and the first decade of the twentieth. The bicycle provided a means of travel that was cheaper to maintain and faster on the level terrain of Cape May County than the horse and buggy. The result was a proliferation of bicyclists who, inevitably, demanded better roads to suit their needs. These demands led to an improved road system which, ultimately, helped further the advance of the automobile in the first half of the twentieth century.

As the automobile emerged as the main means of transportation in Cape May County, the use of railroads for public transport waned. Railroads peaked in Cape May County in 1913 when a total of over sixty miles of rail lines were in active service. By 1923 however, it was noted that more people were traveling to Cape May County beaches by automobile than by train. This decline continued for the next sixty years. By 1958, the active rail mileage in Cape May County had decreased to 45 miles. Today that figure is only 37 miles of line providing limited local freight service and a tourist passenger service that primarily serves the lower half of the County. (No regular passenger service to points outside the County is currently available.)

By 1891 the inadequacy of many road systems in the State led to the formation of the first State agency in the nation created to deal specifically with this growing problem, the New Jersey Highway Department. The principle of State aid for local roads adopted by the State of New Jersey survives to this day. The continued cooperation between the New Jersey Department of Transportation (successor to the New Jersey Highway Department) and County and municipal governments has contributed greatly to our current highway system over the past 114 years.

In the first half of this century, increased use of the automobile resulted in a significant increase in road use. In Cape May County, the construction of the Ocean Drive system (1927-48) by the Cape May County Bridge Commission and the Garden State Parkway (1956) by the New Jersey Highway Authority (now the New Jersey Turnpike Authority) greatly relieved congestion on some sections of U.S. Route 9 and Route 47 (Delsea Drive), the roads which serve the main north – south corridors of the County.

While these two systems together with the State and County road network went a long way to satisfy the County's growing automobile traffic, they were not the ultimate solution. Time and an ever-increasing volume of traffic have continued to place stress on the County's facilities. At present, many existing roads are often unable to handle peak summer traffic and Cape May County is facing the formidable challenge of maintaining a system of steadily deteriorating roads and bridges. The proposed remedies for this situation will be the main focus of this plan.

OVERVIEW OF LAND DEVELOPMENT

Development and transportation go hand in hand. Given this factor, a brief description of the County's development history is appropriate.

Over the years, growth in Cape May County occurred first in the mainland area, where small rural agricultural communities evolved during the Seventeenth, Eighteenth, and first half of the Nineteenth Centuries. Railroads, enhanced highways, and the advent of the automobile allowed the focus of development to shift to the barrier islands during the later half of the Nineteenth Century and the majority of the Twentieth Century. Today, the County's barrier islands are intensely developed and the focus of new

development has once again returned to the mainland areas where some areas of vacant developable upland are still available.

Mainland development is basically concentrated in two areas. The first is the North Cape May/Villas area of Lower Township. This heavily developed bayshore residential area contains approximately 20% of the County's permanent population. The second area of concentrated development on the mainland is the north/south New Jersey Route Nine/Garden State Parkway corridor. This area, which bisects the four mainland Townships, is the upland "spine" of the County and has been the focus of mainland development since the days of the earliest settlers.

Today, Cape May County consists of a chain of developed barrier islands connected to the mainland by a series of causeways. The causeways tie into the north/south Route Nine/Garden State Parkway corridor that links the County to the northern part of the State. The "northern bayshore" or western part of the County is mostly rural/agricultural land and, lacking public water or sewer, is less densely developed. It is served by New Jersey State Route 47 and the unfinished Route 55 corridor which will be discussed in more detail later in this document.

Section Two

Existing Transportation System

TRAFFIC

The intention of this section is to present the existing traffic situation in Cape May County and, in light of anticipated volume increases, examine future traffic needs. Particular attention will be devoted to right-of-way requirements for County roads, and existing and potential traffic problem areas.

In order to facilitate this discussion of traffic problems, it is useful to divide the total traffic into respective categories and discuss each briefly. The most direct approach to separating traffic into categories is with respect to function. For discussion purposes, traffic will be separated into:

1. Home-to-work (commuter) traffic
2. Business and shopping traffic
3. Social and recreational traffic

Historically, home-to-work, or commuter traffic, has not been a major problem in Cape May County. The permanent population is equitably distributed and the road system so designed that off-season traffic of this type does not put a strain on the existing road network. However, there are repetitive minor difficulties at intersections along the mainland Route 9 corridor and at specific intersections in the coastal communities during typical rush hour periods.

During the summer season during rush hour and on weekends, tourist traffic creates the most commuter problems in the county. Typically, barrier island causeways evidence the most drastic problems and are most in need of scrutiny.

Though not as significant as in other counties, year round commuter traffic also occurs with daily trips to jobs outside Cape May County. The nearby Atlantic City casinos and the growing employment markets of Vineland and Millville provide job opportunities for many Cape May County residents, and the number of daily commuters is increasing annually.

Business and shopping traffic is made up of commercial vehicles involved in supplying merchandise and services, together with vehicles for shoppers and consumers seeking those goods and services. Less concerned with distance and more concerned with time, these vehicles make up the bulk of non-rush hour traffic in the off season and do not pose a major problem on a Countywide perspective. However, during the summer season when traffic volumes increase dramatically, these vehicles blend in with the

indistinct tourist travel patterns and become part of the County-wide seasonal congestion problem

In the past, when the barrier islands were the major year-round population centers, this business and shopping traffic migrated to the island communities. Within the past two decades, the majority of the County's year-round population has shifted to the mainland communities. With this shift has come a number of new shopping centers to attract the island population to the mainland and reverse former traffic patterns.

Social and recreational traffic in Cape May County is primarily composed of tourist from the nearby northern and western states, as well as the occasional Canadian or foreign family. The typical seasonal pattern has changed as the season has been extended into the spring and fall months by the various business interest within the County. Every Cape May County resident is familiar with the rush of resort bound traffic, which descends on Friday afternoons, as well as the mass exodus, which occurs on Sundays or after the Holidays. This pattern is repeated every weekend from April to October, reaching a congestive height during July and August of each year.

These three types of traffic, when considered individually do not present a significant problem to Cape May County's road network during the non-summer months. However, when combined during the peak summer season or during a prime spring or fall weekend, the resulting congestion can be quite serious at several intersections and roads throughout the County.

In general, the seasonal traffic which Cape May County experiences each summer has contributed to the construction of a high standard road network. This seasonal high traffic volume occurs uniformly throughout the county. As a result, striving to handle the peak seasonal traffic loads has created road facilities that, in general, have more than enough capacity to handle off-season demands.

RIGHT-OF-WAY

Legally, the term "right-of-way" refers to the right of passage over the lands of another. In regard to Cape May County's road system, "right-of-way" refers not only to the paved road surface, but also to the actual width of the area of passage. The following list indicates that a wide variety of right-of-way widths exist among the various County roads. Dennisville-Petersburg Road, Goshen-Swainton Road and Jonathan Hoffman Road at 33 feet and Dias Creek Road at 35 feet are examples of unusually narrow rights-of-way. Examples of extremely wide variations along different sections of the same road occur most commonly in or near the resorts. Sea Isle Boulevard varies between 66 and 166 feet, Third Avenue and Ocean Drive between 60 and 120 feet and Avalon Boulevard between 50 and 320 feet.

These extreme variations in right-of-way widths bring into sharp focus the absence of any comprehensive plan or set of standards which might have guided officials

at the time these roads were added to the County road system decades ago. It also accentuates the need for standards to gradually bring the County system into a relatively uniform pattern of roadway widths. The need lies primarily in the fact that, if officially mapped, during the subdivision or site plan stage the necessary land may be acquired or the corridor preserved at little or no cost to the taxpayer. However, if permitted to go unmapped, the acquisition of the necessary additional right-of-way may become extremely expensive or its acquisition made impossible by virtue of its own development.

ROADWAY CLASSIFICATION

The existing road system in Cape May County consists of approximately 980 miles, which are loosely classified as freeway, arterial, collector, or local roads. Roads classified as “Freeway” include the Garden State Parkway and Ferry Road (in Lower Township). “Principle Arterials” are mostly State roads (Routes 47, 9, 50, 83, 49, 109, and 52). “Collectors” are almost exclusively County roads. The highest percentage of road type is “Local” roads (mostly municipal, but some County roads) which contains almost two thirds of the total mileage.

Table One

Road Classification

<i><u>Type</u></i>	<i><u>Miles</u></i>	<i><u>Percent</u></i>
Freeway	35	4%
Principle Arterial	119	12%
Connector	166	17%
<u>Local</u>	<u>660</u>	<u>67%</u>
Total	980	100%

Basically, roads under County jurisdiction are classified according to function and traffic volume. For the purposes of this study, they are classified into three categories:

1. PRIMARY COLLECTOR ROADS - High traffic volume, intra-County service roads linking important population centers in the County or serving as direct ties between State Highways (or direct ties between State Highways and the Garden State Parkway).
2. SECONDARY COLLECTOR ROADS - Intra-County service roads linking minor population centers with other communities, primary

connector roads, or State Highways. Generally, these are roads serving the function of a primary connector, but are characterized by lower traffic volumes.

3. **LOCAL ROADS** – Roads and streets serving primarily as property access ways. These roads are usually under municipal jurisdiction, but some County Roads fall under this classification.

The actual right-of-way standards suggested by this study are shown in Figure Three. Ideally, a "Primary Connector" is to have a right-of-way of 86 feet, but in reality, this right-of-way is usually more than 66 feet but less than 86 feet. This allows for the anticipated expansion of the road to four lanes to meet current or future traffic demand. "Secondary Connectors" are ideally 66 feet. However, these roads usually have rights-of-way between 50 and 66 feet. Roads classified as "Local" have an ideal 50-foot right-of-way. While the majority of County "Local" roads meet this standard, some have rights-of-way as narrow as 33 feet.

The *County Road System Classification* is shown in Figures Four, Five and Six. There is a total of 74 miles of State roads (See Figure Seven, Operating State Highway Map), 35 miles of limited access freeway (the Garden State Parkway and Cape May-Lewes Ferry Road), and 212 miles of County Roads. The County Road classification is as follows:

Table Two

County Road Classification

<i>Type</i>	<i>Miles</i>	<i>Percent</i>
Primary Connector	69	34%
Secondary Connector	88	41%
<u>Local Connector</u>	<u>55</u>	<u>26%</u>
Total	212	100%

As previously mentioned, the existing right-of-way for some County Roads is less than the proposed right-of-way. When this is the case, the County will attempt to acquire the additional right-of-way when the opportunity arises through the development review process.

Also, the existing right- of- way for certain portions of some County Roads may exceed the proposed right-of-way. In such a case, the County will retain the additional right-of-way until it is determined that the additional right-of-way is no longer required

by the County. It may then, upon proper request, be returned to public or private hands in accordance with existing statutes.

TRAFFIC CONDITIONS

One of the negative impacts of tourism in Cape May County is traffic. The heavy reliance on the automobile and lack of adequate mass transportation in the region has contributed to this dilemma.

Over the past decade the habits of the typical tourist have changed. Whereas monthly and weekly stays were typical for a tourist family in the 1970's, today's tourist family stays in Cape May County for much shorter periods of time. As an indication, beach tag sales volume over the past several years indicates a large increase in daily tag sales as opposed to weekly and seasonal tag sales. In addition, motels are seeing the change in vacancy rates with vacancies during mid-week and no-vacancies on weekends. As of this writing, the typical tourist comes to Cape May County for an average two or three day stay (Cape May County Department of Tourism Survey, 2004). Also, because the modern tourist is so mobile, a significant number of visitors do not stay in the County over-night.

With more people taking more trips and staying shorter periods of time, traffic has become critical during peak summer periods. This problem is most evident during the weekend rush hours of Friday evenings, Saturday mornings, and Sunday evenings when "day trippers" mingle with "week-enders" and the traditional "overnight" tourist to fill the County's roadways.

A special study (Alternate Rental Check-in Study) was conducted by the County Planning staff in 2004. It examined summer traffic patterns and the feasibility of changing the traditional rental check in/out day of Saturday. It is sometimes suggested that changing half of the weekly rentals to a Sunday start (from a Saturday start) would relieve Saturday's seasonal traffic congestion. A survey was conducted during the 2003 summer season and, predictably, the results showed that the majority of visitors arrived or departed on Saturday and Sunday. The study then examined summer traffic volume in the County and determined that a significant percentage of the traffic occurred on Saturday. However, the study also determined that Saturday's traffic volume was only slightly higher than Sundays. The conclusion was that any significant transfer of traffic from Saturday to Sunday would only exacerbate Sunday's already tenuous traffic situation. Thus, switching a large number of weekly rental starts from Saturday to Sunday was unfeasible.

A good barometer of the seasonality of the County's traffic can be seen by taking a close look at the traffic fluctuations of the Garden State Parkway.

GARDEN STATE PARKWAY TRAFFIC

The Garden State Parkway was completed in 1956 and has served as the major transportation link to and within Cape May County ever since. Over the years, Parkway traffic has increased in pace with the over-all development of the County. As a result,

Parkway traffic data has been used as a valuable source of background information. The following chart shows the seasonal fluctuations in traffic volumes at the three Garden State Parkway toll facilities in Cape May County. The Average Daily Traffic (ADT - total yearly traffic divided by 365) and the Average Daily Summer Traffic (ADST- total July and August traffic divided by 62) are shown, as well as the percentage of ADST as compared to AADT.

Table Three

SEASONAL INCREASE IN GARDEN STATE PARKWAY TRAFFIC

Toll	ADT	ADST	Increase
Great Egg Harbor Toll Plaza			
1970	9,175	18,945	106%
1980	18,153	34,364	89%
1990	31,717	50,441	59%
2000	36,686	59,046	61%
2004	43,745	68,205	56%
Cape May Toll Plaza			
1970	9,642	20,909	117%
1980	17,110	34,025	99%
1990	26,084	45,212	73%
2000	29,945	52,296	75%
2004	34,249	56,226	91%
Wildwood Tolls			
1970	928	1,441	55%
1980	1,795	2,611	45%
1990	1,996	3,062	53%
2000	2,751	4,606	67%
2004	2,665	3,911	47%

Source: New Jersey Turnpike Authority/New Jersey Highway Authority Toll Counts

Because of the unrestricted ingress and egress to the Garden State Parkway at Crest Haven Road, Stone Harbor Boulevard, Shellbay Avenue and other locations, counts for the Wildwood Toll Plaza in Middle Township cannot be directly related to counts at the Cape May Toll plaza at Mile post 19 in Dennis Township. Also, construction in the immediate area of the Wildwood Toll Plaza during all of 2004 distorted the normal traffic volume since motorists tended to avoid the congestion caused by the construction in the area. Nevertheless, these counts show the large difference between summer and winter traffic volumes within the County. They also show a steady over-all growth in Parkway traffic over the thirty-four year period.

Another indicator of increased traffic growth can be found in the total volume counts (as shown below) which compare Garden State Parkway traffic with County Bridge Commission traffic. While the Bridge Commission traffic appears to level off (the decrease in 2004 is because the Commission suspended overnight tolls in the off-season at certain locations due to extremely low traffic volume), the Parkway traffic continues to increase.

Table Four

TOTAL YEARLY TRAFFIC

	1970	1980	1990	2000	2004
Co. Toll Bridges	3,476,423	5,520,920	6,126,271	6,001,827	5,689,492
GSP Toll Cape May	3,432,569	6,091,319	9,306,004	10,929,779	12,500,706
GSP Toll Great Egg	3,266,285	6,462,618	11,254,400	13,390,287	15,966,948

TRAFFIC CONGESTION PROBLEM AREAS

The following list represents the major traffic problem areas in Cape May County. The areas are not ranked in terms of priority, and are loosely based on a combination of informational sources, including traffic volumes, accident reports, and field inspections.

- The unfinished N.J. Route 55 corridor, N.J. Route 47 and 347 (Dennis Township).
- The N.J. Route 52 causeway between the Somers Point Circle in Atlantic County, and Ocean City.
- County Road 657 (Cape May Court House-South Dennis Road) in the vicinity of N.J. Route 9, the Garden State Parkway, and Stone Harbor Boulevard (Middle Township).
- The intersection of County Road 609 (Crest Haven Road) with the Garden State Parkway (Middle Township).
- Intersection of Shellbay Avenue and the Garden State Parkway (Middle Township).

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- Mile Post Zero, Garden State Parkway, N.J. Route 109, and Schellenger's Landing Bridge at the entrance to Cape May City (Lower Township and Cape May City).
- Middle Thorofare Bridge, County Road 621, Ocean Drive (Lower Township).
- Intersections of N.J. Route 9, Sea Isle Boulevard, County Road 625 and County Road 550, Woodbine/Ocean View Road (Dennis Township).
- Intersection of County Road 613, Breakwater Road, and County Road 626, Seashore Road in the vicinity of Sally Marshall's Crossing (Lower Township).
- N.J. Route 9 and County Road 626, Seashore Road in the vicinity of Bennet's Crossing (Lower Township).
- N.J. Route 9 Corridor from N.J. Route 147 to N.J. Route 47 in Middle Township.
- Roosevelt Boulevard (Co. Rd. 623) from N.J. Rt. 9 in Marmora, Upper Township to West Avenue in Ocean City
- Avalon Boulevard (Co. Rd. 601) from N.J. Rt. 9 to the Garden State Parkway

Solutions for some of these areas could be as simple as the installation of a traffic signal, while solutions for other areas could cost millions of dollars and take years to complete.

BRIDGE CONDITIONS IN CAPE MAY COUNTY

The majority of the County's bridges are in acceptable condition, but in a geographic area like Cape May County with a large number of bridges, it is inevitable that some will need extensive maintenance or even complete reconstruction. Time and the harsh salty climate eventually take their toll on such intricate structures.

The County owns and maintains 23 bridges and is responsible for maintenance and engineering for the 5 bridges owned by the Cape May County Bridge Commission. (See Figures Eight and Nine and Table 5, Cape May County Bridges). The estimated cost of major repairs and replacement of our bridges is listed in the following chart. Some bridges have repair and replacement costs listed. This is because certain repairs are needed in order to keep the bridge open to traffic until such time as the replacement structure is completed.

Table Five

County Bridges and Maintenance/Replacement Estimates

Str. No	Structure Name	Route	Municipality	Costs	Condition
0500-001	Ingrams Thorofare	601	Middle	\$1,500,000	Fair
0500-003	Gravens Thorofare	601	Middle & Avalon	\$450,000	Good
0500-004	Roosevelt Blvd.	623	Upper & Ocean City	\$1,300,000	Fair
0500-005	Ludlams Thorofare	625	Dennis & S.I.C.	\$2,400,000	Fair
0500-006	96th Street	657	Middle/Stone Harbor	\$500,000	Satisfactory
0500-007	Schellenger's Landing	633	Lower & Cape May	\$3,000,000*	Fair
0500-008	Avalon Canal	601	Avalon	\$2,900,000	Good
0500-009	Leonards Thorofare	601	Middle	\$1,100,000	Good
0500-018	Cedar Swamp	631	Upper	\$3,000,000**	Satisfactory
0500-019	Marshallville Road	636	Upper	\$1,250,000*	Closed
0500-028	Great Channel	619	Middle & Stone Harbor	\$4,000,000 \$17,700,000*	Serious
0500-029	Upper Thorofare	621	Lower	\$9,300,000*	Fair
0500-030	Mill Creek	621	Lower	\$8,000,000*	Fair

County Bridge Repair Total \$14,150,000

County Bridge Replacement Total \$42,250,000

NOTE: * Indicates Replacement Costs

 ** Sight Distance Issues

COUNTY BRIDGE COMMISSION

The Cape May County Bridge Commission owns and operates five bridges that connect the County's barrier island communities. The original Ocean City-Longport Bridge was replaced with a new span in 2002 at a total cost of approximately sixty million dollars. The four remaining bridges were built between 1939 and 1948. As such, they are not only suffering from the ravages of the elements over the years, but also are "design deficient" (i.e. of insufficient size to meet current standards). Due to these factors, it has been determined that these four bridges need to be replaced.

Table Six

**Cape May County Bridge Commission
Bridge Maintenance/Replacement Estimates**

Str. No	Structure Name	Rt.	Municipality	Costs	Condition
3100-002	Corson Inlet	619	Upper	\$8,000,000	Serious
				\$60,000,000*	
3100-003	Townsend's Inlet	619	Avalon & S.I.C.	\$10,250,000	Serious
				\$65,000,000*	
3100-005	Grassy Sound	619	Middle	\$8,250,000	Serious
				\$50,000,000*	
3100-006	Middle Thorofare	621	Lower	\$2,750,000	Serious
				\$76,000,000*	

Commission Repairs Total \$29,250,000

Commission Replacement Total \$251,000,000

* Indicates Replacement Costs

STATE BRIDGES

The State of New Jersey Department of Transportation maintains several bridges on State Roads within Cape May County and, like the County, has an on-going bridge repair and replacement program. Only those bridges included in the most recent State Transportation Improvement Plan are shown below.

Table Seven

**New Jersey Department of Transportation
Bridges In Cape May County
In 2006-2008 Transportation Improvement Plan**

Structure Name	State Road #	Municipality	Cost
Rt. 49 Cape May Branch Bridge	49	Upper Twp.	7,600,000
Tuckahoe River Bridge	50	Upper Twp.	13,600,000
Beach Thorofare, Rainbow Channel, Elbow Thorofare, Ship Channel *	52	Ocean City	200,000,000+

*Note: These three bridges are part of a total enhancement project for Route 52 from Somers Point (Atlantic County) to Ocean City (Cape May County). The final cost is expected to be significantly higher since it will include financing over time.

Transportation Means and Methods

BUS TRANSPORTATION

Bus transportation in Cape May County is provided by New Jersey Transit, The Five Mile Beach Electric Railway (a private operator), and a Fare Free Transportation system operated by the County.

New Jersey Transit provides service from Philadelphia/Camden via Sickerville/Atlantic City. From Atlantic City several buses serve Cape May County municipalities. A N.J. Transit route also runs from Philadelphia/Camden to Sea Isle, Avalon, Stone Harbor, Wildwood, and Cape May. Travel time between Philadelphia and Atlantic City is approximately 1 hour and 45 minutes while travel time between Atlantic City and Cape May is approximately 1 hour.

The Five Mile Beach Electric Railway Corporation operates a public passenger service that serves the Wildwoods year round and connects to the Rio Grande shopping complex. It also operates a summer park and ride service in Cape May City and trolley service in Ocean City that connects to the Atlantic City shopping district.

The issues of convenience and timing have always been problems for public transportation services in Cape May County, particularly in rural areas where ridership is insufficient to warrant regular service. Also, for this reason, many areas of the County have no public bus transportation. Because of this, Cape May County provides a passenger transport service known as Fare Free Transportation which operates a fleet of busses, vans, and specially equipped handicapped vans that provide service to these rural areas and the County in general. It consists of the following:

1. Work Trip Routes - Two scheduled bus routes oriented towards work trips running north and south in the early morning and late afternoon. Ridership is dominated by County employees riding to work in the Cape May Court House and Rio Grande areas, and U.S. Coast Guard employees riding to the base in Cape May.
2. Shopping Route - A scheduled route deviation for shopping-oriented service generally from mid to late morning. Buses follow a general schedule between towns and communities, but provide route deviation services in order to make necessary door-to-door pick-ups and drop-offs.
3. Scheduled daily subscription-type service for human service agency clients to and from centers and facilities.
4. Escort Demand Responsive Service - Demand responsive door-to-door pick-ups throughout the County oriented to medical and agency trips.

5. Meal delivery to group facilities, private homes, and the County's senior citizen nutrition centers.

For more specific information concerning these free transportation services, contact the Cape May County Department of Fare Free Transportation.

In addition to the above mentioned bus transportation, a special shuttle bus is operated by the Delaware River and Bay Authority during the summer season. The shuttle carries passengers from the Cape May - Lewes Ferry Terminal in Lower Township to Cape May City on a regular basis.

RAILWAY TRANSPORTATION

As mentioned previously, the rail industry reached its peak in Cape May County around 1913 when approximately sixty miles of active passenger and freight rail lines existed (See Figure 10, Existing Rail Facilities, 1913). With the increasing use of the automobile, railroad use has declined over the next ninety years. Today only 37 miles of active rail lines exist within the County (See Figure 11, Active Rail Lines, 2005).

There are two active rail lines within the County: a freight line that provides coal and fuel oil to the B. L. England Electric Generating Station in Beesley's Point, and a tourist/passenger rail service between the Cape May County Zoo, Historic Cold Spring Village and the City of Cape May operated by the Cape May Seashore Lines Railroad. Eventually this operator would like to expand service to Tuckahoe in Upper Township and ultimately tie in with our national rail network to bring rail passenger service back to Cape May County. Although this effort has the support of County and local officials, the process could take many years.

AIR TRAVEL

Air travel within the county is facilitated by three municipal airports (See Figure 12, Cape May County Airports). The largest and best equipped of these is the Cape May Airport located in Erma, approximately six miles northwest of Wildwood in the north central part of Lower Township. This airport was built during World War Two as a training facility. After the war ownership was transferred to the County which operated it until 2001 when the County leased it the Delaware River and Bay Authority. Over the years, it has been utilized for both commercial and private purposes.

The airport is located on a one thousand acre parcel and consists of two - five thousand foot illuminated runways. Instrument approaches during periods of poor visibility are possible. Landing approach assistance is also provided by the radar installation at the National Aeronautical Facilities Experimental Center, Pomona.

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Although there are no commuter services provided at this time, the Airport is capable of accommodating large numbers of planes, including short range jet transports. In addition to the major activity, private flying, the facility is accessible for freight service.

The Ocean City Municipal Airport is conveniently located at the central area of that barrier island community and consists of a single runway which is fully illuminated. Several improvements over the past years have greatly improved the quality and the capabilities of this facility. Although the Ocean City Municipal Airport is the smallest of the three airports in Cape May County, its location on the barrier island provides for a great deal of activity.

The Woodbine Municipal Airport serves the north-western sector of Cape May County. Originally constructed as a training facility during World War Two, the facility consists of two paved runways and one taxiway and has lighting equipment to allow for night landings. The airport also provides a service and refueling area.

The Atlantic City International Airport, located approximately 20 miles north of Cape May County services larger commercial aircraft for business as well as private travel. Atlantic City International Airport is served by several passenger carriers and offers direct air travel to many major cities in North America.

CAPE MAY - LEWES FERRY

The Cape May - Lewes (Delaware) Ferry, owned and operated by the Delaware River and Bay Authority, is the major water transportation facility serving Cape May County. A fleet of five vessels capable of carrying approximately one hundred cars and 800 passengers each make Delaware Bay crossings year round. Service averages six arrivals and departures daily during winter months during the week and eight on weekends. With the additional traffic demands of the summer season, the schedule is expanded to thirteen arrivals and departures daily, with additional departures added as needed on weekends and holidays. Terminals are located at the west end of the Cape May Canal and at Breakwater Harbor, Lewes, Delaware.

WATER TRANSPORTATION ROUTES

The intracoastal waterway is a major route permitting inshore passages for 102 miles through protected bays, channels and lagoons of New Jersey's Atlantic Coast from Manasquan Inlet through Cape May County to the Delaware Bay. Used mainly by recreational craft during the summer season, the route is also used by small craft during all but the most severe winter months. Considerable funds are expended annually to maintain Cape May County's waterways and coastal inlets. Effort is made to maintain a controlling depth of six feet in the Intercostal Waterway, but minimum depths of three feet may be found as shoals form near major coastal inlets.

Cape May County has a substantial commercial fishing fleet that ranks as high as eighth nationally and first on the East Coast in terms of tonnage or value of catch. The heavy use of the County's Intercoastal Waterway by this fleet, as well as recreational craft during the summer season requires frequent bridge openings. These openings cause traffic congestion which, in turn, impacts negatively on the County's air quality. Scheduled bridge openings are effective in alleviating this problem, but still cause inconvenience to all involved.

BIKEWAYS AND PEDESTRIAN WALKWAYS

Figure 13 shows the bikeways and pedestrian walkways in Cape May County. The longest County-owned bicycle facility is the Cold Spring Bikepath, located within the Atlantic City Electric right-of-way from Ferry Road north to Sally Marshall's Crossing. The longest County bikelane is that portion of County Road 626 (Seashore Road) south of the Cape May Canal which links Lower Township with the Cape Mays. Another bikeway exists in the County Park in Middle Township and connects the Park and Zoo to the Middle Township Recreation Complex. Other longer municipal bicycle paths and lanes are examined in more detail in the Cape May County Bicycle Study (available from the Planning Department).

One advantage Cape May County has when compared to many other areas is our miles of boardwalks and promenades. Always located along scenic beachfront areas, these ideal walkways serve millions of pedestrians each summer season serve the County's transportation system. Additional walkways are located in Bellplain State Park, as well as the County Park in Cape May Court House.

A long boardwalk and ground pedestrian trail exists at Cape May Point State Park that allows visitors to penetrate the dense vegetation and view nature first-hand. Bicycles are prohibited.

GENERAL FINDINGS

In brief, Cape May County is an area with an extensive and diverse transportation system. Major highways, bridge systems, toll roads, airports, extensive recreational and commercial boating facilities, bikeways, local roads, pedestrian walkways and even a modern ferry facility combine to provide our citizens with a wide variety of transportation alternatives.

It must be understood however, that a transportation system as diverse and complex as Cape May County's requires thorough and efficient planning to provide adequate funding for proper upkeep and maintenance. To this end, the County Board of Chosen Freeholders and the County Planning Board and Department will continue to play an active role in the transportation planning process.

SECTION THREE

Planning Issues, Concerns, and Recommendations

Transportation planning is an essential part of the comprehensive planning process. In Cape May County, where our economy is dependent on a well-balanced and properly maintained system of transport, transportation planning is an integral factor in assuring not only the livelihood of our region, but also the competent management of our development and resources.

It is very apparent that, as Cape May County begins the twenty-first century, our economy and population will continue to grow. Along with this growth will come an increased dependence on transportation, placing a greater burden on our existing transportation infrastructure. Ultimately, roads and facilities that were once thought to be state-of-the-art will become congested and possibly unsafe. Ever increasing environmental regulations will almost completely eliminate the possibility of constructing new roads and greater emphasis will be placed on maintenance and upkeep of existing facilities. Also, if trends continue, construction costs will increase dramatically while funding sources dwindle. Given this scenario, it is imperative we prepare for our future by exercising proper transportation planning.

PURPOSE OF THE PLAN

This plan serves several purposes:

1. To serve as the transportation component of the adopted Cape May County Comprehensive Plan. The Comprehensive Plan is the guiding document for the County, establishing policy and priority for many issues. This Transportation Plan, when adopted by the Cape May County Planning Board, will become the transportation component of the Comprehensive Plan and address the transportation aspect of our County's future.
2. To satisfy Federal requirements of the Subregional Transportation Planning (STP) Work Program, which requires the development and regular updating of a transportation plan. This planning activity allows the County to remain eligible for Federal transportation funds administered through the New Jersey State Department of Transportation in conjunction with the South Jersey Transportation Planning Organization (SJTPO), which is the Metropolitan Planning Organization (MPO) for the four county South Jersey region (Atlantic, Cape May, Cumberland, and Salem Counties).

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3. To identify the adopted transportation policies, issues and objectives of the Cape May County Planning Board.
4. To identify a plan of proposed transportation improvements and strategies that will address existing and future transportation needs for the County.
5. To create and implement transportation projects which will address the current air quality guidelines.
6. To manage growth by planning and coordinating transportation projects in a manner consistent with existing and projected land use.

GENERAL PLAN OBJECTIVES

Cape May County's geographic location, reliance on the automobile, steadily increasing population and resort economy requires a County Transportation Plan that emphasizes the maintenance and upkeep of all primary transportation facilities. As such, the main objective of this plan is to create and maintain an adequate and safe transportation system that is capable of addressing these needs for Cape May County's citizens and visitors. The basic objectives of this plan are:

1. Address Traffic Safety
2. Reduce Congestion
3. Enhance Public Transit
4. Address Air Quality

ADDRESSING TRAFFIC SAFETY IN CAPE MAY COUNTY

The following section deals with the first goal of the plan, addressing public safety in Cape May County. The typical methodology is to analyze accident data for the County and determine prime accident locations. Following a thorough field investigation of identified problem sites, appropriate recommendations for corrective measures can be made.

Traffic accident data, however, is sometimes difficult to obtain, particularly at the municipal level. In addition, a year-by-year analysis of a particular road or intersection requires data counts be taken at the same time each year to provide constant data, not data that equates summer traffic volume with winter traffic volume. Because of this complexity, suitable data is frequently not available. Also, the data itself could be misleading since the vehicle or the vehicle operator may be the direct cause of the accident, rather than the particular road or intersection in question.

Nevertheless, the available data shows that accidents occur at numerous sites throughout the County. As expected, intersections (particularly high-volume intersections) are the most likely site for a minor vehicle accident. Serious accidents and fatal accidents occur more sporadically. The factors of driver performance, weather conditions, and speed exert the major influences on accident severity, and cause a pattern that differs from the total accident pattern.

High Accident Intersections (no priority)

1. N. J. Route 9 and Roosevelt Boulevard, Upper Township
2. Co. Rd. 610 and Co. Rd. 550, Woodbine
3. N.J. Route 9 and Co. Rd. 550, Dennis Township
4. N.J. Route 9 and Sea Isle Boulevard, Dennis Township
5. N.J. Route 9 and Cape May Court House/South Dennis Rd., Middle Township.
6. Garden State Parkway and Stone Harbor Blvd., Middle Township
7. Co. Rd. 658 (Hand Avenue) and Co. Rd. 620(Shunpike) , Middle Township
8. Rio Grande Boulevard and New Jersey Ave., Wildwood
9. Fulling Mill Road, Lower Township
10. N.J. 109 and Ocean Drive, Lower Township
11. N.J. Route 9 and Route 47, Middle Township

As it was previously mentioned, most of the intersections or roads identified above experience high volume traffic. One possible way to deal with these intersections is through the installation and use of "smart" traffic signals. This technology was designed to reduce congestion and enhance circulation by altering signalization in response to traffic volumes. Other methods include providing additional turning lanes, re-striping or major modifications. Some accident prone roads may require more extensive engineering measures.

To address roadway safety, the Office of the County Engineer, in conjunction with the New Jersey Department of Transportation and the South Jersey Transportation Planning Organization (through the Road Safety Audit Program), periodically monitors all County Roads and intersections. If design flaws or increased traffic volume contribute to unsafe conditions, appropriate remedies are implemented. This on-going process is the County's first line of defense for traffic safety.

ELIMINATE CONGESTION

The second objective of this plan is the reduction of congestion, which occurs when traffic volumes exceed the design capacity of the roadway. Congestion can be caused by temporary conditions such as construction on the roadway, construction on other roads which detour traffic to undersized roads, or special events which draw exceptional crowds. When congestion becomes predictable, such as during rush hours or at the same time and place every day or weekend, it is no longer a temporary problem and needs to be addressed.

Cape May County, like other counties in New Jersey, suffers from occasional rush hour traffic. However, this traffic volume is usually light in comparison to the volumes which inundate our roadways every summer. The seasonal influx of tourists puts a strain on the County's road system that is unmatched anywhere in the State. In many areas of the County, traffic volumes at peak periods in July and August are five times higher than peak volumes during January and February.

General alternatives to congestion include:

- Intersection improvements such as right and left turn lanes.
- The installation of "smart" traffic signals which respond to traffic flows.
- Scheduled bridge openings to reduce idle time.
- Encouraging mass transit to reduce the number of vehicles.
- Encouraging employers to stagger work hours ("flex-time") to avoid rush hour traffic.
- Encouraging the use of car and van pooling.
- Encouraging the use of alternative transportation such as bicycle and rail transit.

ENHANCE PUBLIC TRANSIT

Without a doubt, public transit makes sense. If more commuters use the bus or other forms of public transportation in greater numbers, there would be fewer vehicles on the road. This would result in less congestion, cause less wear and tear on the road system, and contribute to a cleaner environment by reducing emissions which cause pollution. Some of the basic alternatives for enhancing public transit are:

- Encourage public transportation in rural areas to reduce the dependence on the automobile.
- Support and encourage groups in need of public transportation.
- Support and maintain Cape May County's Fare Free Transportation program and encourage integration of this program with other mass transit.
- Encourage the creation and maintenance of "Park N' Ride" facilities that tie in with public transit.

- Support land use patterns that rely less on the construction of new roads and more on public transit.

ADDRESS AIR QUALITY

The Federal Government, through the Federal Highway Administration provides flexible funding alternatives and more stringent transportation requirements that tie air quality planning to the transportation planning process. These address the Clean Air Act amendments of 1990 that require state and metropolitan transportation plans to be consistent with state air quality plans. With transportation funding linked to air quality planning, states are required to document that their proposed transportation expenditures will not result in an increase in air pollution. (See Figure 14, Ozone Nonattainment Areas)

Air quality is a complex issue. While only approximately 30% of air pollution is caused by vehicles (mobile sources), every vehicle on the road contributes to air pollution and the degradation of our air quality. As a result, many of the general alternatives to reduce congestion also result in better air quality.

- Encourage public transportation.
- Support transportation alternatives that reduce congestion such as staggered work hours, van and car pooling, etc.
- Encourage Park N' Ride facilities to reduce the number of vehicles on the road.
- Support “smart growth” mixed-use land use patterns that provide community oriented pedestrian friendly land use and discourage the use of single occupancy vehicles (SOV).

Recommendations

The following is a brief list of recommendations relating to general and specific areas of transportation activities within Cape May County:

General Problems

Problem: Atlantic City, with its large and growing casino industry, employs many County residents. The majority of these employees reside in Upper Township and Ocean City within short commuting distance of Atlantic City. The resulting commuter patterns and high traffic volume is predictable.

Recommendation: Greater emphasis should be placed on transportation projects and programs in the northern County area adjacent to Atlantic City. More and better transit should be provided.

Problem: Cape May County has approximately 16,000 campsites that cater to approximately 60,000 campers at the height of the summer season. Each day during the summer season, a large number of these campers travel to the barrier island communities to visit the beach and use other facilities.

Recommendation: Explore the possibility of providing transit to these campers. Explore available sources for planning funds or equipment to address this situation.

Problem: There are few permanent traffic counters in Cape May County. As a result, traffic data is scarce and inconsistent.

Recommendation: Install permanent traffic counters at key locations on County Roads. Seek funds for this equipment when available.

Problem: The public is heavily reliant on the automobile, especially the single occupancy vehicle (SOV).

Recommendation: Develop and participate in transportation demand management efforts and strategies to reduce SOV travel. Encourage mass transit, car and van pools, and alternate means of transportation. Seek and support efforts in this regard.

Problem: Unfinished New Jersey Route 55 is a state of the art major highway which connects the Philadelphia metropolitan area with Port Elizabeth, N.J., in

neighboring Cumberland County. Originally intended to connect with the Garden State Parkway in Cape May County, this road now encourages thousands of motorists to use old New Jersey Route 47 and other lesser quality roads which suffer extreme seasonal congestion and extended motorist delays. This situation will become intolerable when evacuation is required due to extreme weather. Currently, NJDOT has no plans for the completion of the final twenty miles of this half century-old sixty mile road project.

Recommendation: Encourage the funding and completion of this major highway. Support incremental approaches such as a Route 47 "Dennisville Bypass" which, together with other alternates, may eventually become the completed Route 55. Support any activity or legislation that addresses emergency evacuation or enhances this corridor for evacuation purposes.

Problem: Municipal Zoning ordinances frequently encourage commercial development along high volume roads, compounding congestion.

Recommendation: Discourage the practice of "strip commercial zoning" and encourage the wise distribution of commercial and residential development at suitable access points to major arterial roads.

Specific Problems:

Problem: Exit Zero (the end of the Garden State Parkway) is a traffic problem area where large volumes of Parkway traffic merge with Route 109 traffic. Rush hour congestion and intermittent Cape May - Lewes Ferry traffic compound the situation. While signals are providing a short term solution, a long term solution is needed.

Recommendation: A long term solution will be expensive and will require close cooperation between the New Jersey Turnpike Authority and the New Jersey Department of Transportation. Continue to list the area as problematic and ascertain that it is included in all long-term study lists.

Problem: There are three at-grade intersections on the Garden State Parkway in Middle Township. These intersections require traffic signals and cause significant delays and resulting congestion.

Recommendation: Maintain an on-going dialogue with the New Jersey Turnpike Authority concerning these intersections and pursue plans for grade-

separated interchanges. Seek alternative funding sources wherever available.

Problem: Seasonal traffic becomes congested along Route Nine south of Route 47 as motorists wishing to go west on Route 47 must traverse the intersection.

Recommendation: Explore the feasibility of a "Rio Grande By-pass" that will provide access from Route Nine west to Seashore Road (Co. Rd. No. 626) and provide easier access to west-bound Route 47.

Problem: Growing traffic volume combined with the closing of the Beesley's Point Bridge and the re-construction of N.J. Route 52 have created a serious access/egress/evacuation problems for Ocean City.

Recommendation: Urge the State to take any and all appropriate action to immediately re-open the Beesley's Point Bridge and further the swift completion of the N.J. Route 52 project. In the alternative, seek immediate improvements to the Garden State Parkway at exits 25 and 20.

Conclusion

Our transportation system, with its roads, bridges and highways, is the first impression Cape May County gives to its visitors. If the County is to retain its place as New Jersey's primary summer vacation destination, proper emphasis must be placed on maintaining and improving this transportation system.

The purpose of this plan is to outline Cape May County's transportation needs and present the necessary objectives, strategies and specific projects to meet those needs, while taking into consideration the interests of safety, the environment, the economy, and energy conservation. While not all-encompassing, this plan is an attempt to analyze Cape May County's transportation needs at a particular moment in time.

In the future, as our County grows, this plan will most certainly need periodic revisions. At that time, opportunities may arise which will require serious scrutiny. Plans and alternatives now thought too costly or too precarious for the environment may one day be seen as necessary. At that future time, it is hoped that this Plan will serve as a suitable starting point for addressing Cape May County's transportation needs.

APPENDIX ONE

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Cape May County Transportation Plan, October, 2000, Cape May County Planning Department

Cape May County Bicycle Facilities Study, June, 2002, Cape May County Planning Department

Alternate Check-in Rental Study, Cape May County Planning Department, June 2004

Transportation Improvement Plan, Fiscal Years 2006-2008, South Jersey Transportation Planning Organization, May 2005

APPENDIX TWO

Roads

Landis Avenue (Co. Rd. 619) Reconstruction, 42nd to 54th, Sea Isle City

Sea Isle Boulevard (Co. Rd. 625) resurfacing, Dennis Twp.

Traffic Signal/Battery Back-up - various locations County-wide

West Avenue (Co. Rd. 619) 12th to 18th, Resurfacing, Ocean City

West Avenue, Section III, Resurfacing, Ocean City

Landis Avenue (Co. Rd. 619), 22nd to 42nd, Resurfacing, Sea Isle City

Breakwater Road (Co. Rd. 613) Resurfacing, Lower Township

Ocean Drive (Co. Rd. 619) Resurfacing, Middle Township

Cape May Court House/South Dennis Road (Co. Rd. 657), resurfacing, Middle Township

Bayshore Road (Co. Rd. 603) from Fishing Creek Road (Co. Rd. 639) to Wilde Avenue, Reconstruction, Lower Township

Tuckahoe Road (Co. Rd. 631), Tuckahoe Road Extension, (Co. Rd. 662) Reconstruction, Upper Township

Gardens Parkway/Leslie Road, (Co. Rd. 656) Reconstruction, Ocean City

Cape Avenue (Co. Rd. 651), Reconstruction, Cape May Point

Goshen Road (Co. Rd. 615), Culvert Replacement, Middle Township

Bridges

Project
Description

Ocean City/Longport Bridge Replacement

Roosevelt Boulevard over Crook Horn Creek (Co. Rd. 623) Rehabilitation

Ocean Drive over Great Channel (Co. Rd. 619) Rehabilitation

APPENDIX THREE

Description of County Roads

<u>County Road Number</u>	<u>Description</u>
550 (West to East)	Rt. 47 Maurice River Twp., Cumberland County to Rt. 9, Dennis Twp.
550 Spur (West to East)	Route 47 Dennis Twp., to Hoffman's Mill Rd Dennis Twp.
557 (South to North)	Rt. 47 Dennis Twp. to Rt. 50 Upper Twp
601 (West To East)	Route 9 Middle Twp. to Ocean Drive, Avalon
602 (North to South)	Rt. 631 to Rt. 9 Upper Twp.
603 (South to North)	Seashore Road, Lower Township to Rt. 47, Middle Twp.
604 (West To East)	Second Ave, Cape May City to Wilmington Ave. Cape May City
605 (South to North)	Rt. 550, Belleplain, Dennis Twp. to Rt.49, Upper Twp.
606 (West to East)	Delaware Bay, Lower Twp to Broadway, West Cape May
607 (South to North)	Sunset Blvd, West Cape May to New England Road Lower Twp.
608 (South to North)	Rt 83 and Radcliff La, Dennis Twp. to Woodbine – Ocean View Road Dennis Twp.
609 (West to East)	Rt. 9, Cape May Court House, Crest Haven Road Crest Haven Complex.
610 (South to North)	Petersburg Road, Dennis Twp. thru Woodbine To Tuckahoe Road, Upper Twp
611 (South to North)	Rt.47, Dennis Twp. to Rt. 557 Woodbine
612 (West to East)	Rt 47 Middle Twp. to Mechanic Street, Cape May Court House

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613 (West to East)	Bayshore Road, Lower Twp to Seashore Rd., Lower Twp.
614 (North to South)	Bay Ave, West Wildwood to New Jersey Ave, Wildwood
615 (South to North)	Mechanic Street, Cape May Court House, Middle T Twp. to Rt. 47 Goshen
616 (South to North)	Rt. 50 Dennisville Road, Upper Twp. to Tuckahoe Road (Rt. 631) Upper Twp.
617 (South to North)	Woodbine Rd. (Rt. 557) to Rt.49, Upper Twp.
618 (East to West)	Route 9 Middle Twp. to Rt. 47, Middle Twp.)
619 (South to North)	North Wildwood Blvd (Rt. 147) Middle Twp. to 34 th Street (Rt. 623) Ocean City
619 Spur (North to South)	West Ave., Ocean City to Central Ave. Ocean City
620 (South to North)	Indian Trail Road (Rt. 618), Middle Twp to Dias Creek Road (Rt. 612), Middle Twp.
621 (South to North)	Route 109, Lower Twp. to Crocus Ave., Wildwood Crest to Walnut Ave., N. Wildwood
622 (South to North)	Beach Ave (Rt. 604) Cape May City to Washington Street, Cape May City
623 (West to East)	Tuckahoe Road Upper Twp. to Asbury Ave. Ocean City
624 I (East to West)	Shawcrest Road, Lower Twp to Old Rio Grande Ave., Lower Twp.
624 II (South to North)	Route 47 Lower Twp to Old Rio Grande Ave., Lower Twp.
625 (West to East)	Rt. 9, Dennis Twp. to Landis Ave., Sea Isle City
626 (South to North)	Rt. 606, Cape May City to Rt. 47, Middle Twp.
627 (East to West)	Rt. 626 to Second Ave., Cape May City
628(South to North)	Rt. 83, Dennis Twp. to Rt. 9, Upper Twp.
629 (South to North)	Lincoln Ave, Cape May Point to Sunset Blvd. Lower Twp.

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630 (South to North)	Ocean Drive, Lower Twp. to Jarvis Sound, Lower Twp.
631 (West to East)	Rt. 50, Upper Twp. to Rt. 9, Upper Twp.
632 (West to East)	Rt. 49 to Cedar Avenue, Upper Twp.
633 (South to North)	Rt. 626 Cape May/West Cape May to Chestnut Street, Cape May
634(West to East)	Rt. 9 Middle Twp to Rt. 47, Rio Grande, Middle Twp.
635(West to East)	Bayshore Road (Rt. 607) to Rt. 626, West Cape May
637 (South to North)	Rt. 9 Upper Twp. to Tuckahoe Road (Rt. 631) Upper Twp.
638 (South to North)	Petersburg Road (Rt. 610) Dennis Twp. To Washington Ave. (Rt. 557), Woodbine
639 (South to North)	Rt. 626 Lower Twp. To Rt. 603, Lower Twp.
640(West to East)	Pittsburgh Ave (Rt. 622) to BuffaloAve., Cape May
641(West to East)	Bayshore Road (Rt. 607) to Seashore Road, Lower Twp
642 (West to East)	Delaware Ave. to Bayshore Road (Rt. 603), Middle Twp.
643 (West to East)	Rt. 47 to Dias Creek Road (612), Middle Twp.
644 (South to North)	Rt. 603 Lower Twp. to Breakwater Road (613) Lower Twp.
645 (West to East)	Rt. 607 to Rt. 626, Lower Twp.
646 (West to East)	Goshen Road (Rt. 615) to Rt. 9, Middle Twp.
647 (West to East)	Fishing Creek (Rt. 639) to Rt.626, Lower Twp.
648(West to East)	Shore Drive, to Seashore Road (Rt. 626), Lower Twp
649 (South to North)	Stimpson Lane (Rt. 645) to Foster Ave., Lower Twp.
651 (North to South)	Rt. 606 to Lighthouse Rd., Cape May Point Boro
652 (North to South)	Goshen–Swainton Rd. (Rt. 646) to Rt. 9, Middle Twp
653 (North to South)	Rt. 633) to Beach Ave. (Rt. 604) Cape May City

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654 (West to East)	Bayshore Road (Rt. 603) to Rt. 47, Middle Twp.
655 (West to East)	Hummock Ave.to Rt. 47, Middle Twp.
656 (South to North)	Roosevelt Blvd. (Rt. 623) to Wesley Road, Ocean City
657(South to North)	Third Ave (Rt. 619) Stone Harbor to Rt. 47, Dennis Twp.
658 (West to East)	Rt. 47 Middle Twp. to Rt. 9, Middle Twp
659 (South to North)	Mill Road (Rt. 557) to Route 49, Upper Twp.
660 (South to North)	Rt. 638 Woodbine to Rt. 550, Woodbine
662 (West to East)	Tuckahoe Road (Rt. 631) to Rt. 9, Upper Twp
663 (South to North)	Crest Haven Road (Rt. 609) to Compost Road, Middle Twp.
664 (South to North)	Route 610 to Rt. 50, Upper Twp.
668 (West to East)	Rt. 628 to Rt. 9, Upper Twp.
669 (West to East)	Rt. 664 to Rt. 50, Upper Twp.
670 (South to North)	Rt. 47 Dennis Twp. to Rt.47, Cumberland County
671 (West to East)	Rt. 50 Upper Twp. to Rt. 9, Upper Twp.
672 (East to West)	Rt. 657 to County College, Middle Twp.
673 (East to West)	Rt.657 to Mechanic Street (Rt.615), Middle Twp.
674 (West to East)	Rt. 9 to Bayberry Road, Middle Twp.

Figure 1

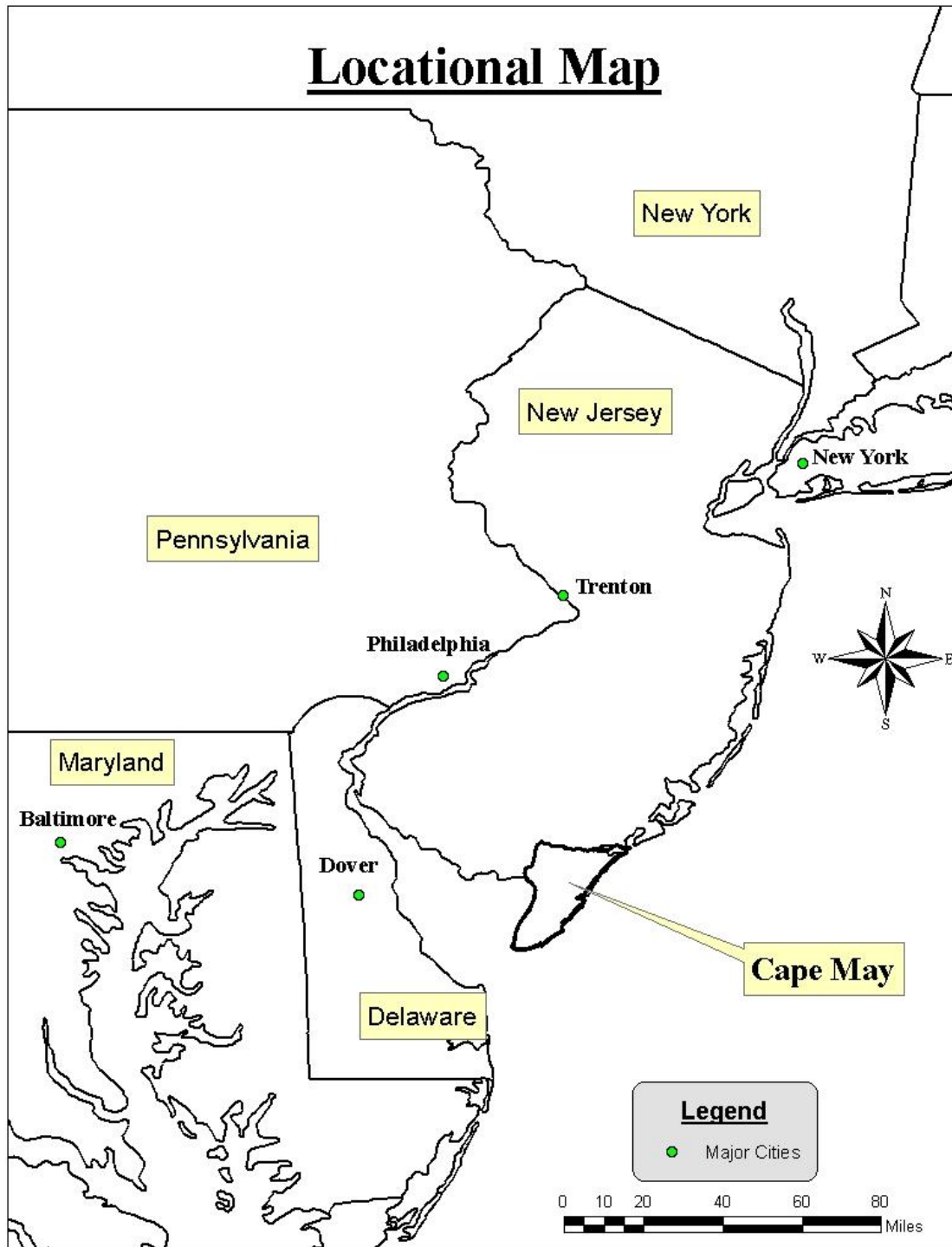


Figure 2

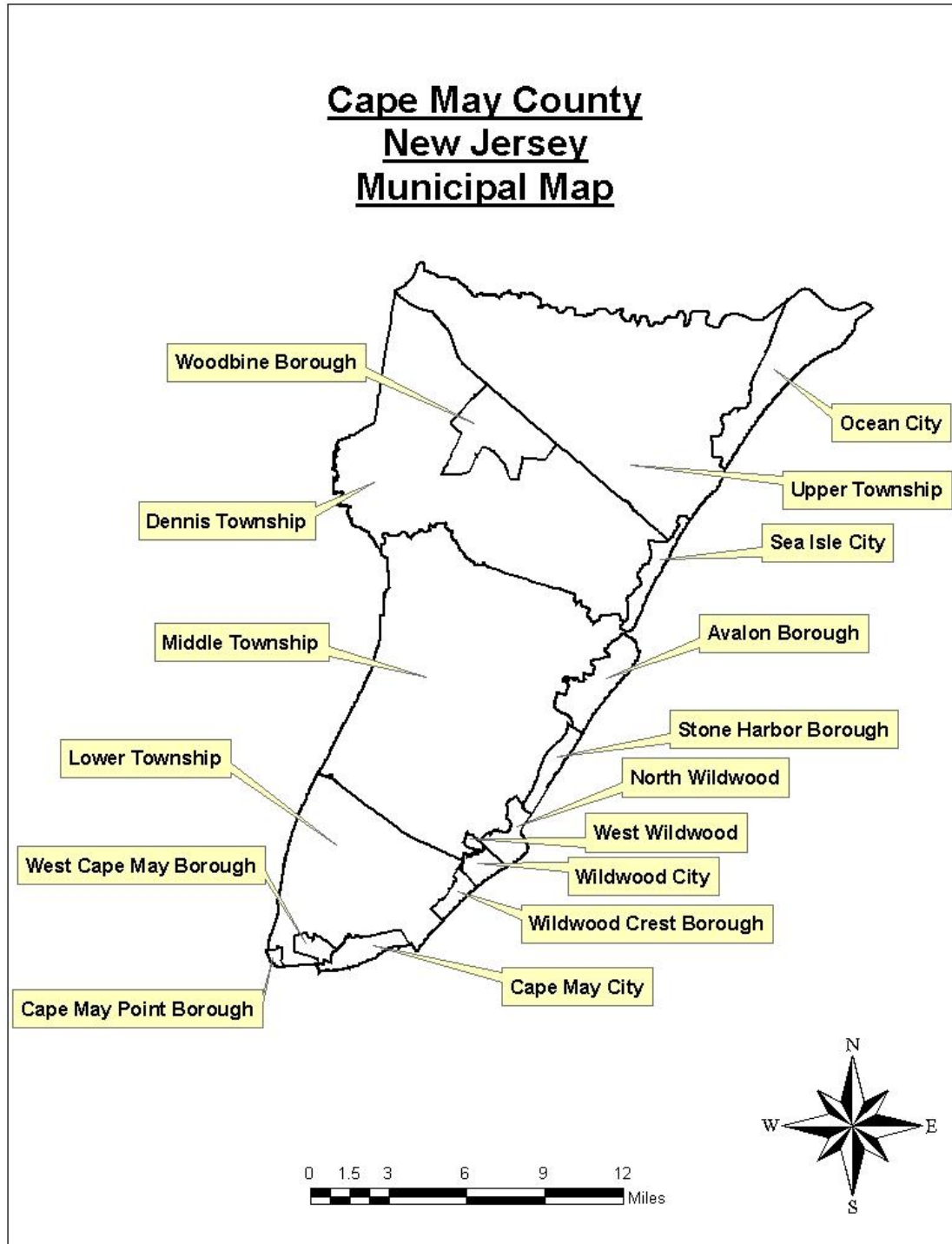


Figure 3

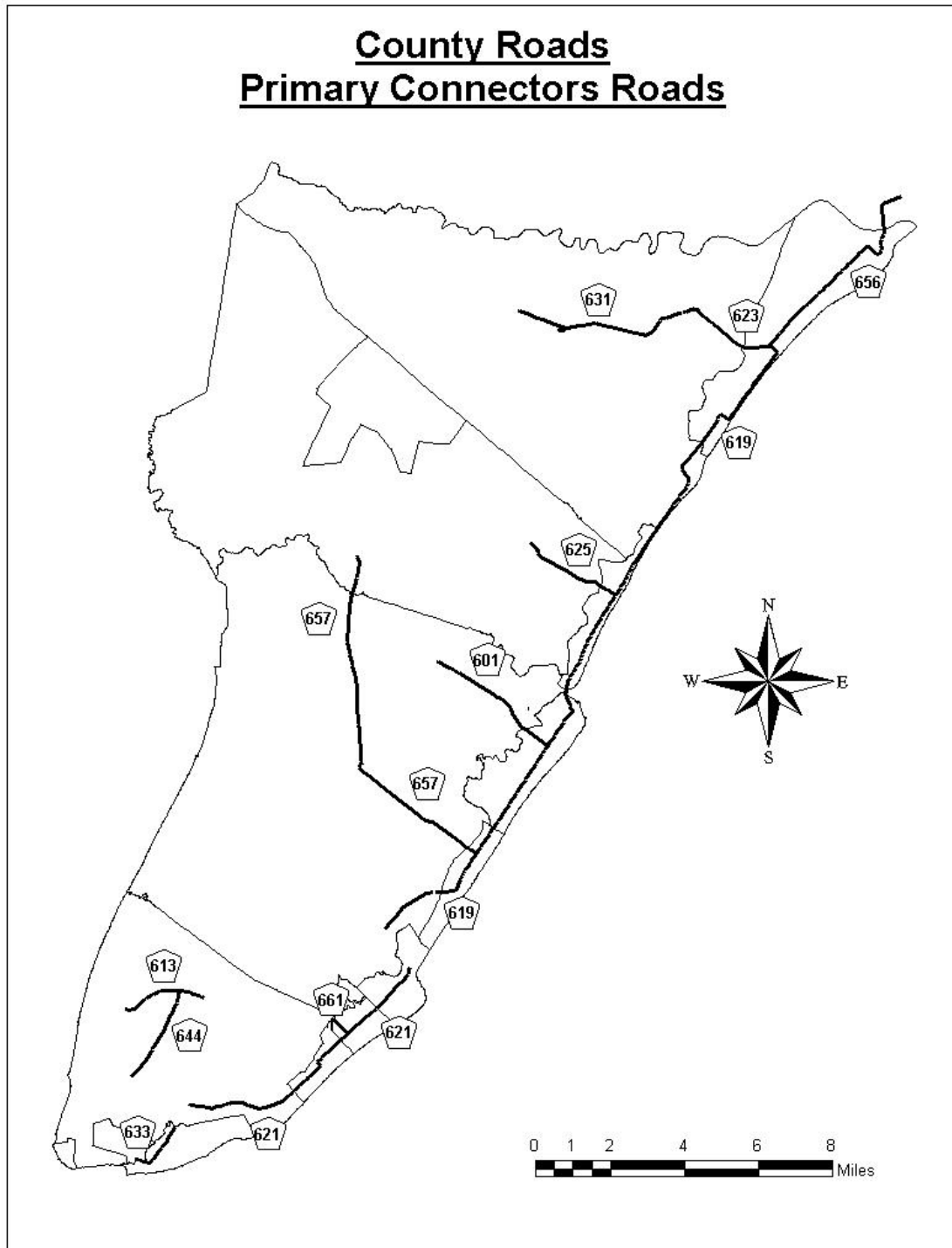


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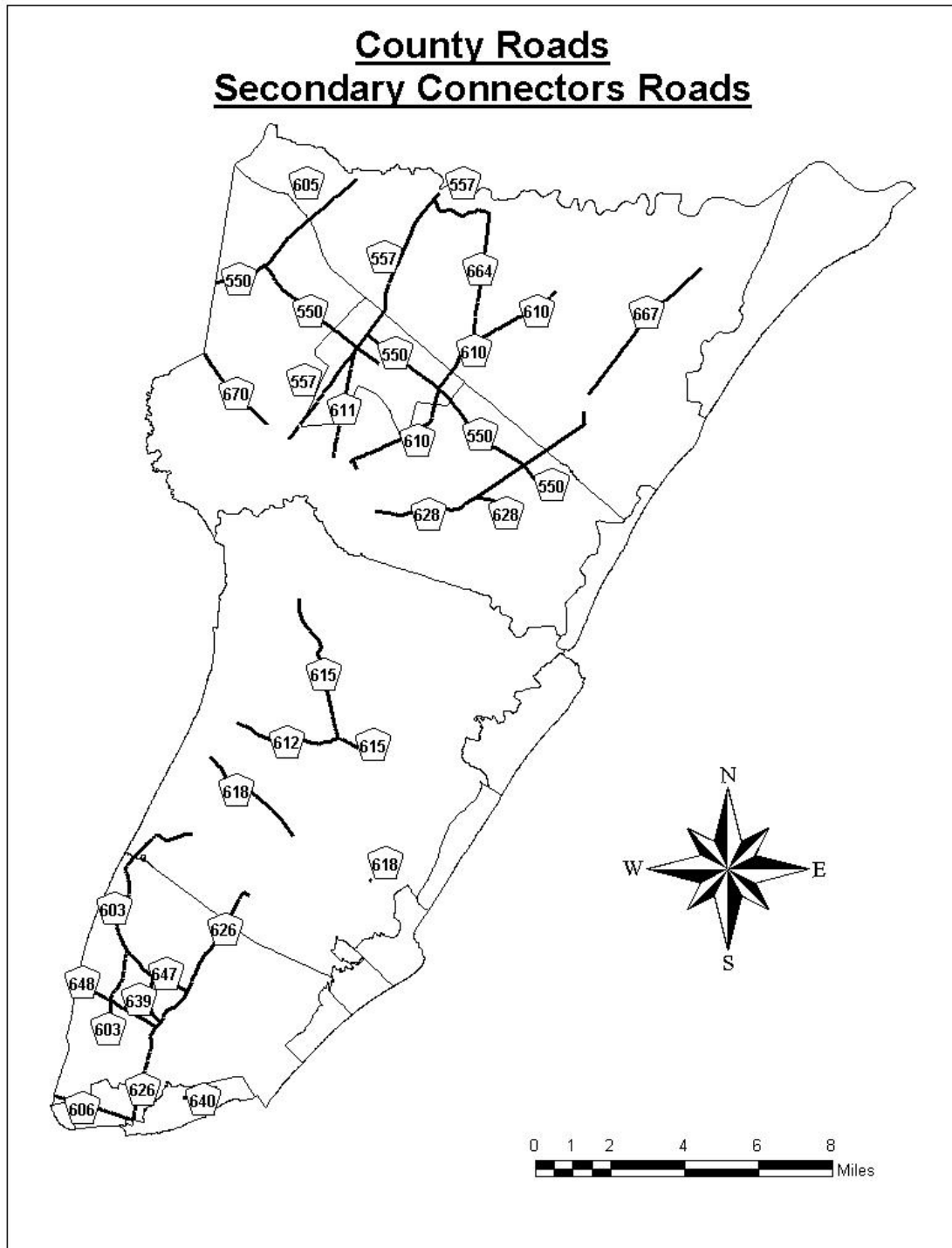


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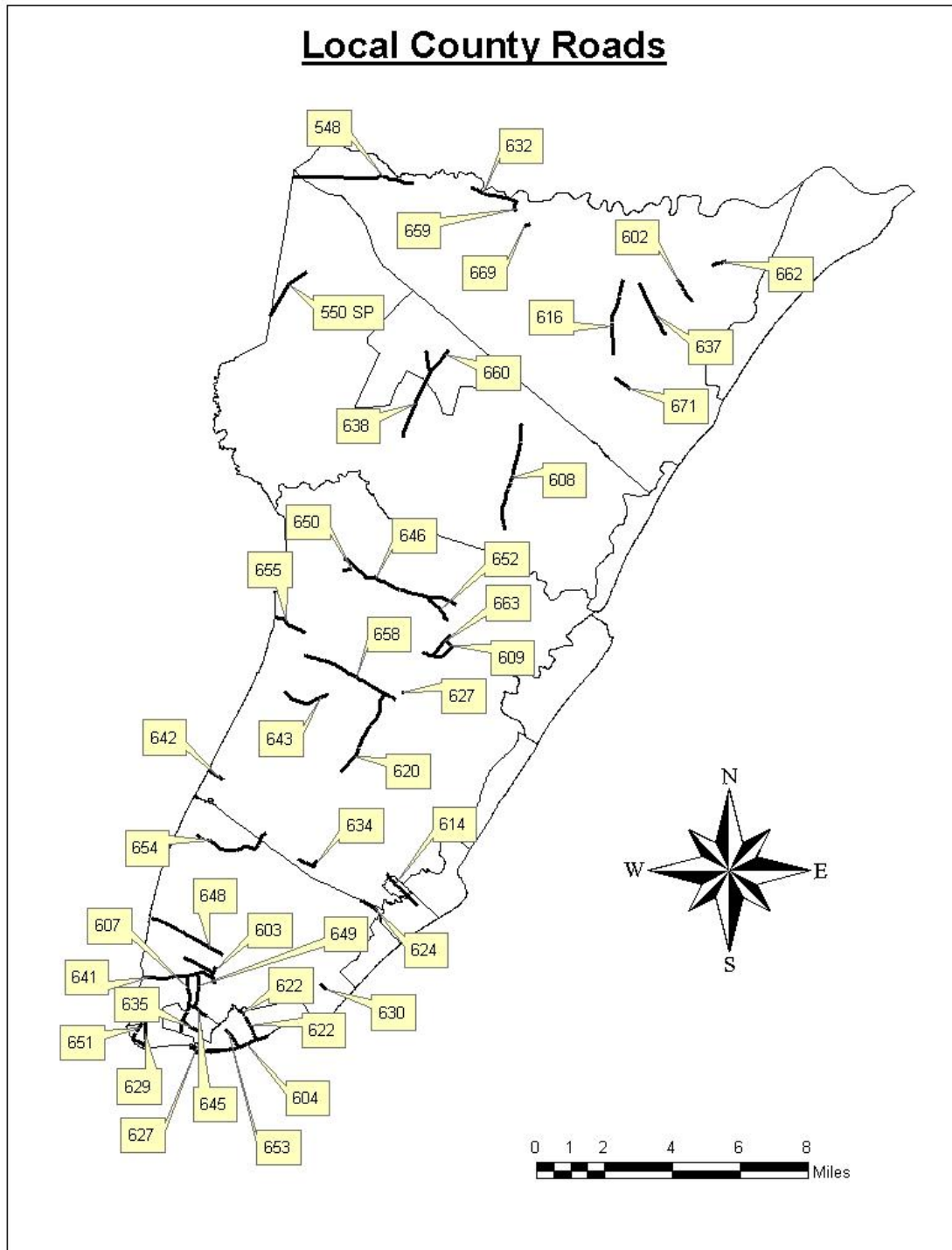


Figure 6

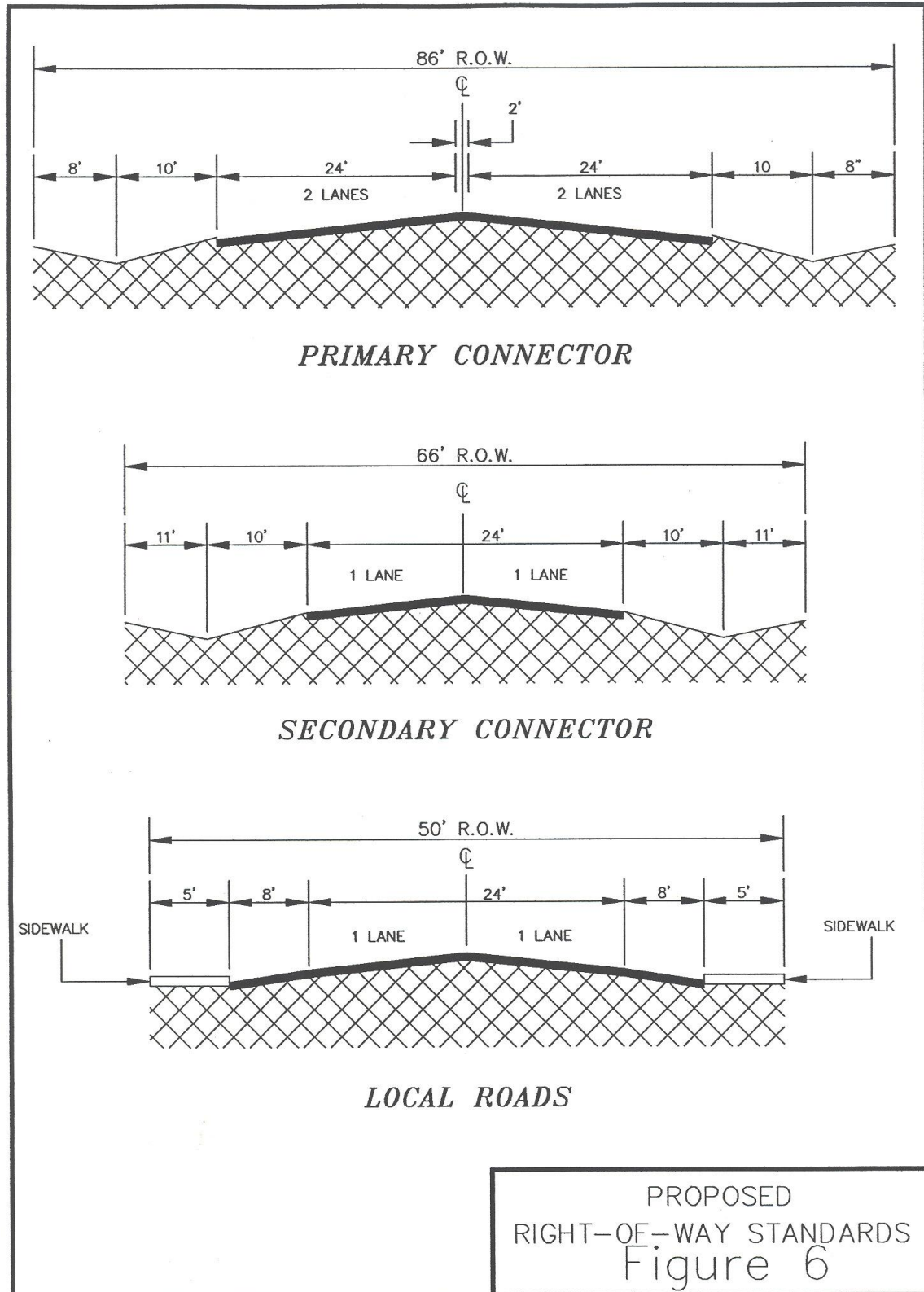


Figure 7

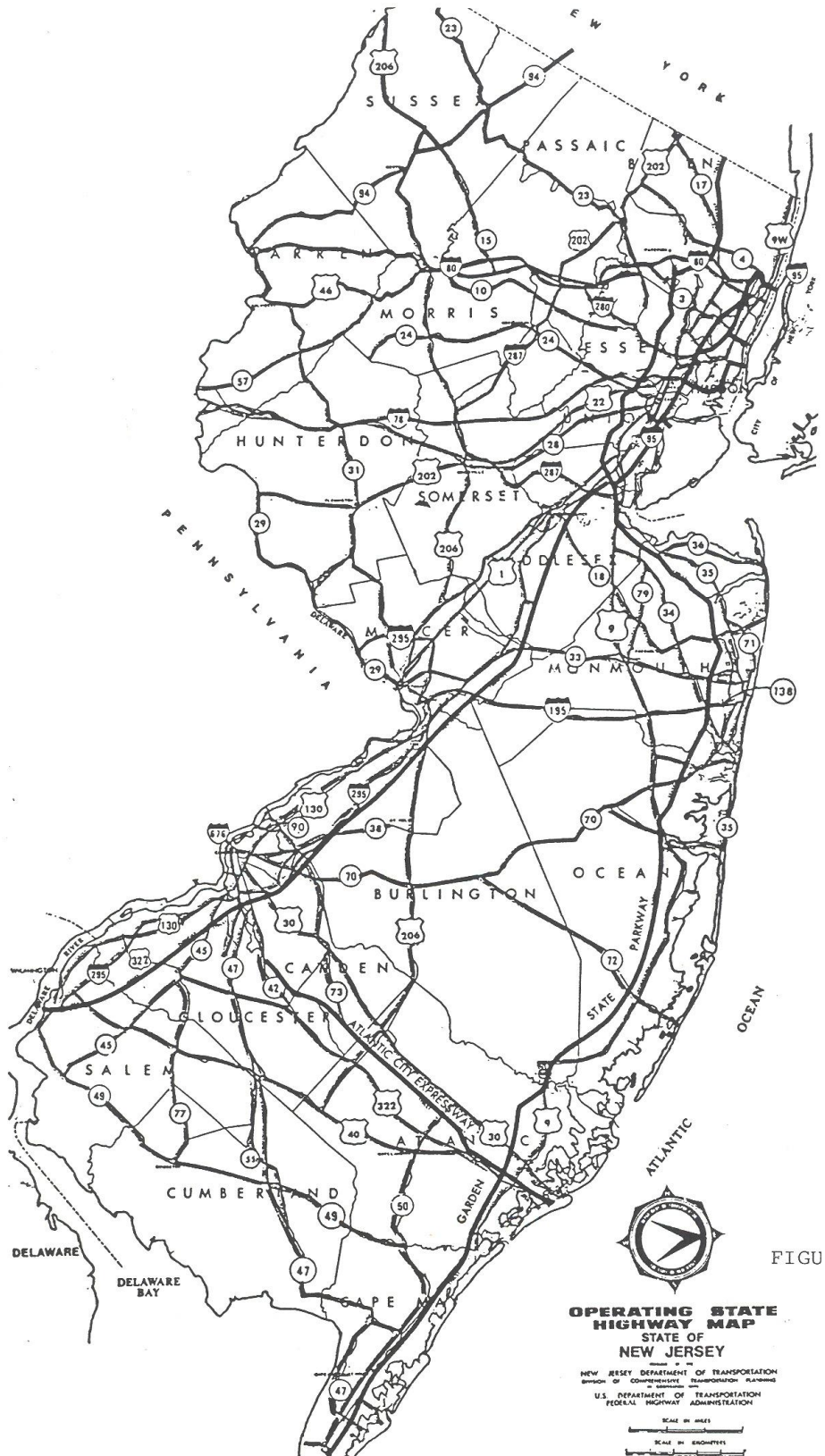


Figure 8

North Cape May County Bridges

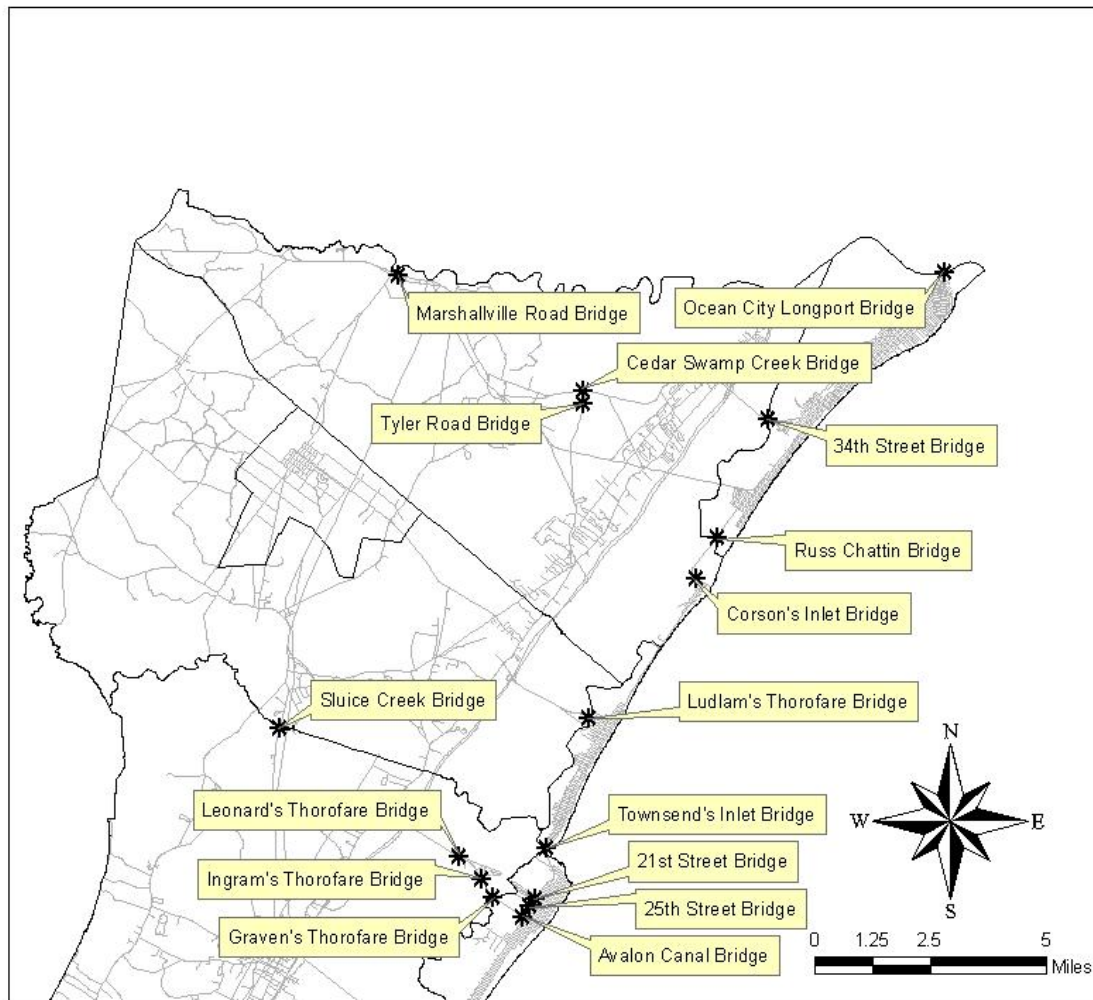


Figure 9

South Cape May County Bridges

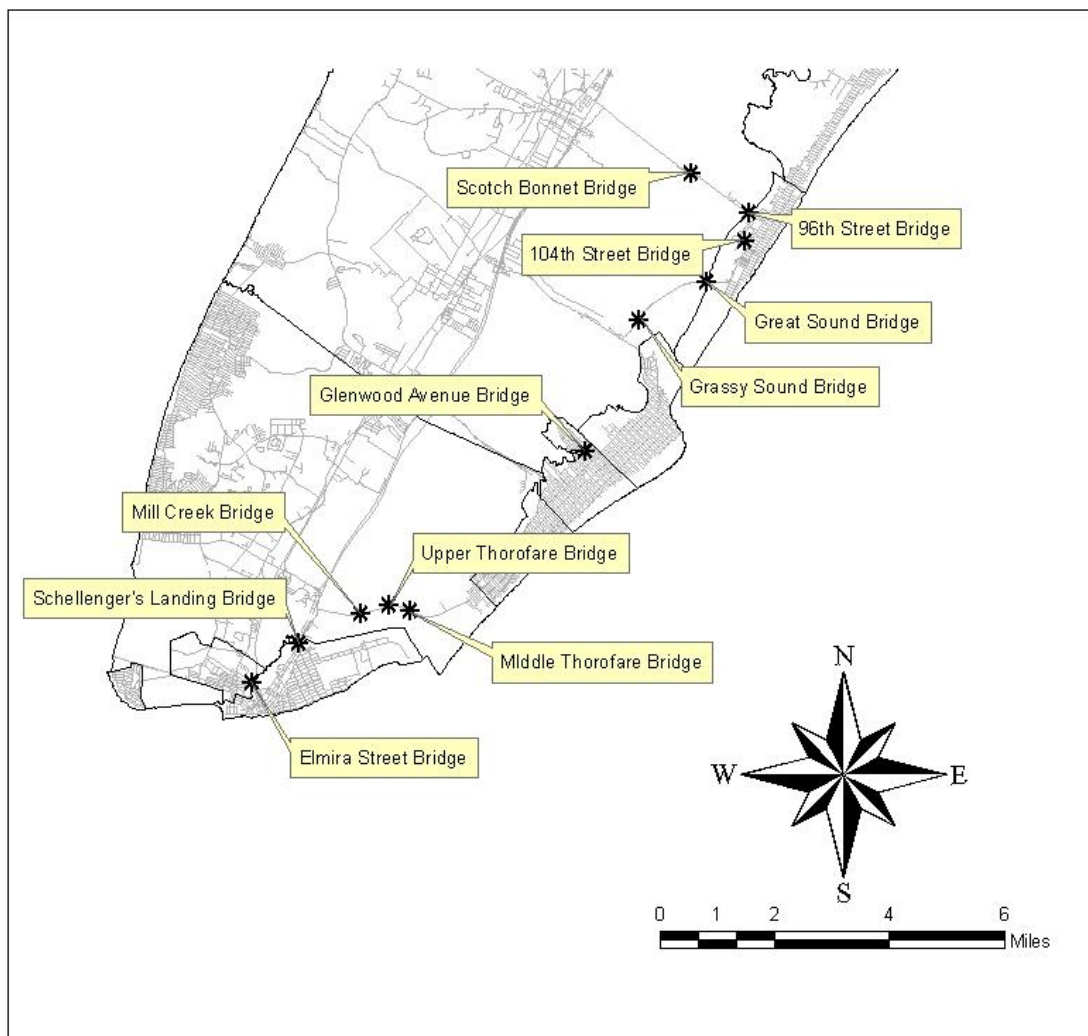


Figure 10

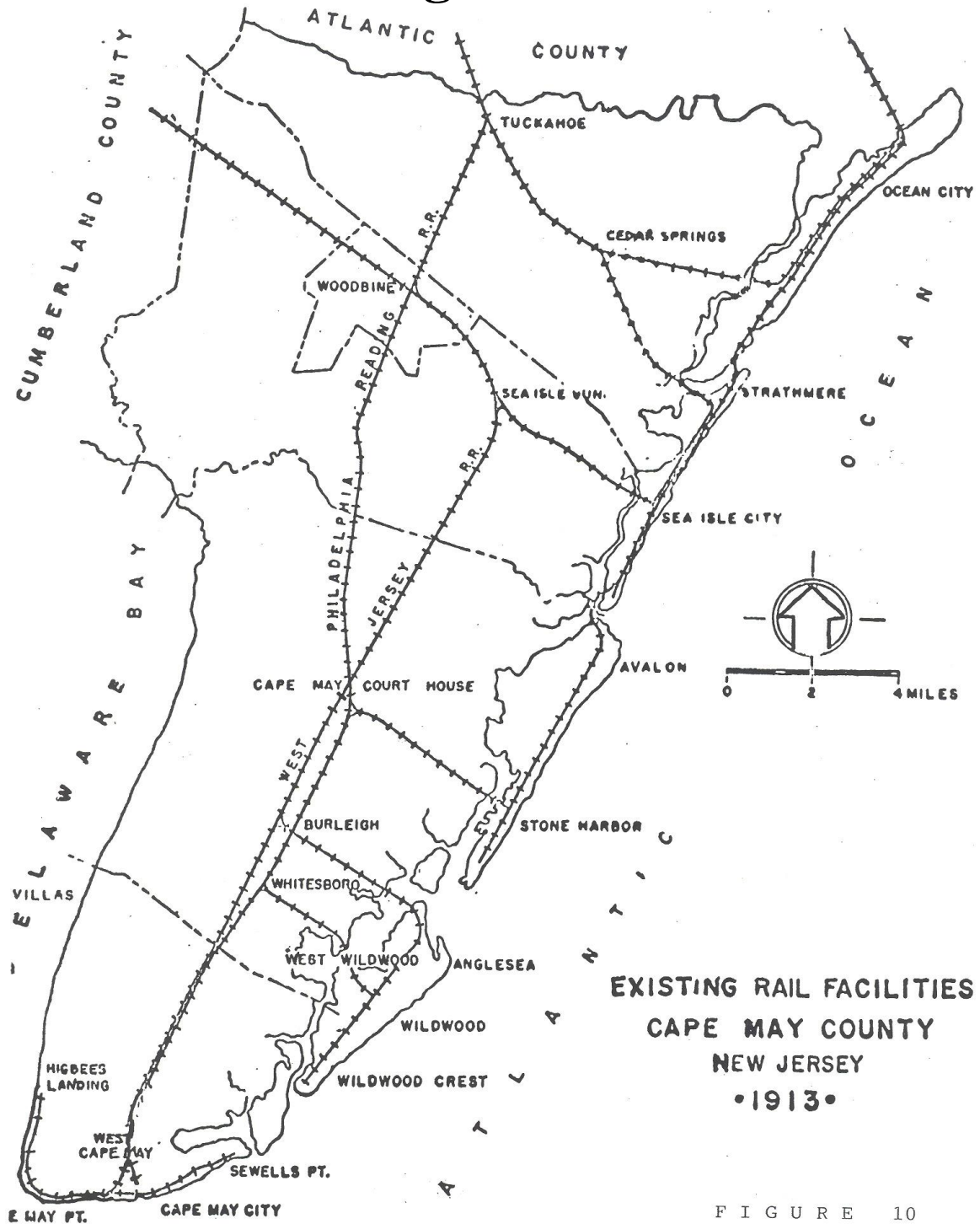


Figure 11

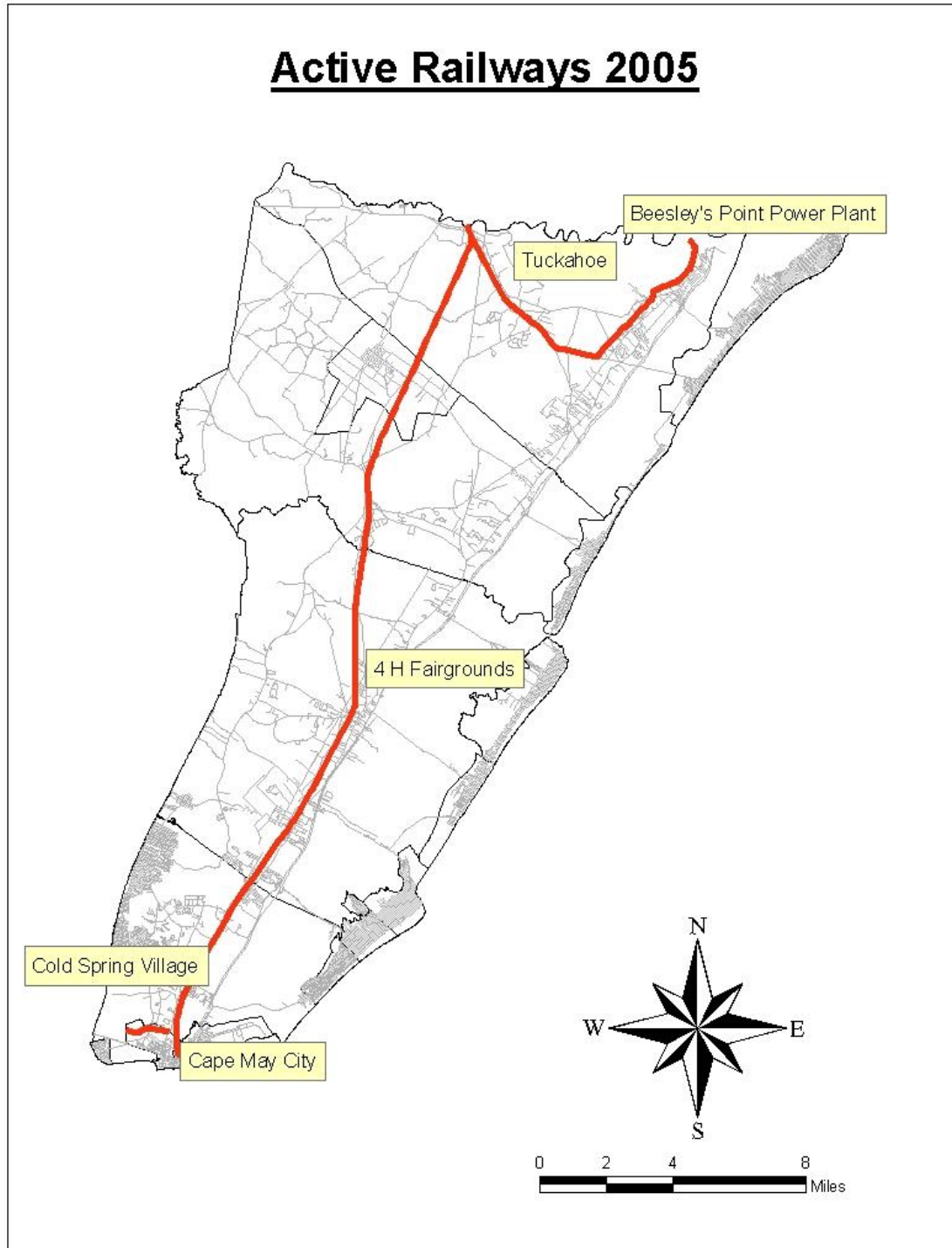


Figure 12

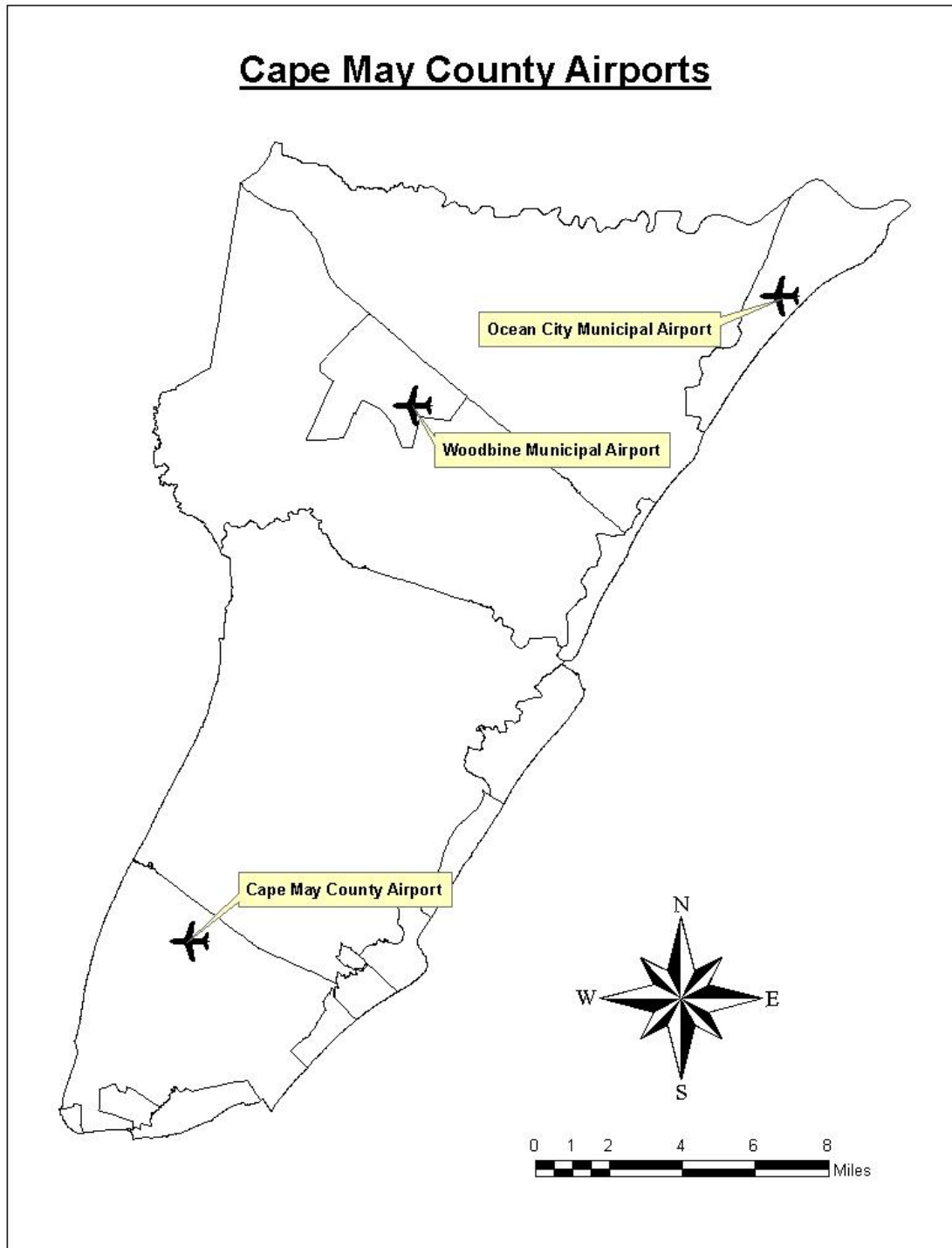


Figure 13

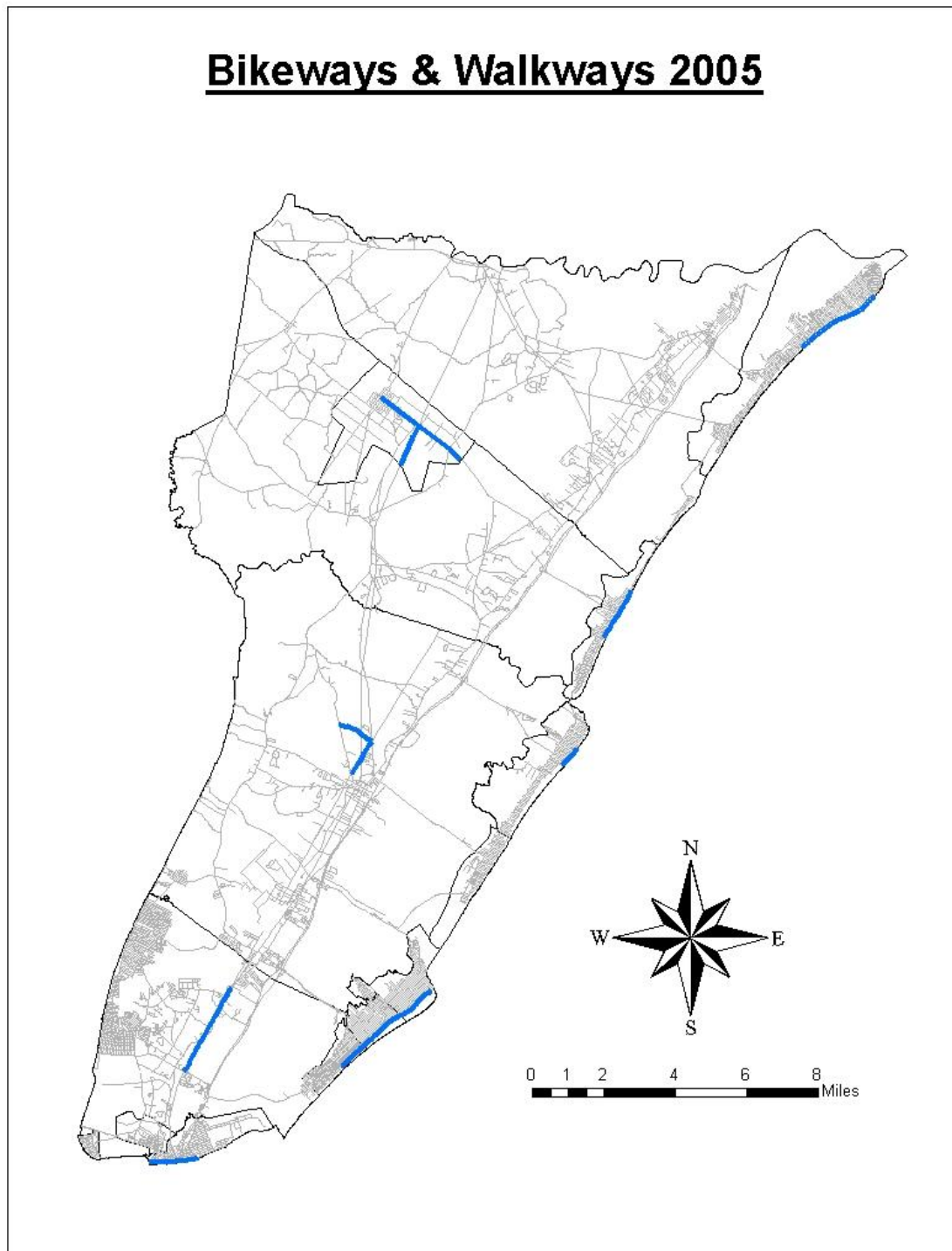


Figure 14

OZONE NONATTAINMENT AREAS

